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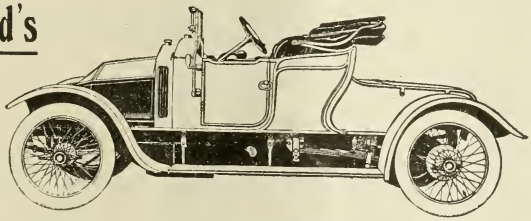

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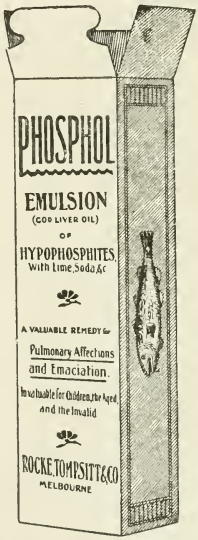

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No. 325. JANUARY 20TH, 1913. Vol. XXVIII.

AUSTRALASIAN PHARMACEUTICAL CONFERENCE.

FOURTH BIENNIAL MEETING.

MELBOURNE, JANUARY 7-14, 1913.

The Fourth Biennial Conference was opened at the College of Pharmacy, Melbourne, on Tuesday, January 7th, 1913, all the States being represented except Tasmania and New Zealand. For some days previously the delegates had been arriving from all parts of Australia, and old friends and acquaintances in the pharmaceutical world were glad to meet again after the lapse of two years since the last Conference, held in Sydney, in 1911. In many respects the present Conference has been the most successful of the series. A large amount of useful work was accomplished, and if the papers in the scientific section were not as numerous as might have been expected, any shortcomings in this direction were more than compensated by the value of the contributions themselves. Experience has proved that the inclusion of pharmacy as a sub-section of the Science Association has amply justified the opinions of those who worked for so many years to secure this privilege. It gives to pharmacy a definite status in the scientific world, and any attempt to dissociate the Conference with the Association for the Advancement of Science should not be attempted without very strong and substantial reasons for a change. Happily, the weather was all that could be desired, and this enabled the delegates to enjoy to the best ad-

vantage the various social functions which were held. General approval was expressed by the visitors of the arrangements made for their comfort and enjoyment during their stay in Melbourne, and one of the features of the Conference was the opportunity it gave to pharmacists from the other States to meet one another and talk over matters of mutual interest. Probably, this informal interchange of ideas did more to promote good fellowship than the actual meetings of the Conference.

The List of Delegates.

New South Wales.—Messrs. A. Wadsworth, F. J. Gray, A. Forster.

Queensland.—G. J. Mackay, A. B. Chater, J. Forbes, R. C. Cowley, J. W. Ward, R. Lenehan, E. W. Symonds.

South Australia.—R. O. Fox, J. H. Young, F. C. Stremple, E. F. Gryst.

Western Australia.—A. L. Tilly.

Victoria.—A. R. Bailey, H. W. Shillinglaw.

Tasmania and New Zealand were not represented.

Official Reception.

The delegates assembled at the College of Pharmacy, Melbourne, at 12 noon on January 7th, to enrol their names. At 1 p.m. luncheon was served in the large laboratory, when, in addition to the delegates, the following were present:—Messrs. Towl, Church, G. Francis, Imes, Cossar, H. B. Taylor, Champion, Pleasance, Plowman, Craig, Hector, Pickford, McAlpine, Sobee, Butchers, Burrows, and Piper. Mr. Bailey occupied the chair. Mr. Towl, on behalf of the Pharmacy Board of Victoria, and Mr. Church, on behalf of the Pharmaceutical Society, briefly welcomed the visitors.

FIRST DAY—TUESDAY, JANUARY 7th.

The Conference was formally opened at 2.30 p.m. the President, Mr. A. Wadsworth, occupying the chair.

Report of General Secretary.—The following report was submitted by Mr. Cowley:—

Since the last meeting of the Conference, held in Sydney, very little has arisen to call for the combined action of the State pharmaceutical bodies.

Soon after the Sydney meeting of the Conference a letter was sent to the Minister for External Affairs and to the Chief Secretary, New South Wales, asking them to use their best efforts to secure reciprocity in registration between Great Britain and the Australasian Pharmacy Boards. A copy of the reply was sent to all the Pharmaceutical Societies and Boards throughout the Commonwealth and New Zealand.

It is source of gratification that since that date reciprocity has been arranged between Great Britain and Victoria and Queensland. No doubt agreements with the other States will follow in due course.

Since the Sydney meeting reciprocity has been established between New Zealand and some of the States of the Australasian Commonwealth.

During the year 1911 the Royal Commission on Foods and Drugs Standards has sat in all the capital cities of the Commonwealth, and the way in which the evidence of pharmaceutical witnesses was received has caused some dissatisfaction.

Duty free spirit for medicinal purposes has again received some attention, and it is likely that efforts will be made in the near future to obtain concessions in this direction.

The restrictions on the import of opium for medicinal purposes have been somewhat harassing to pharmacists, but it is gratifying to learn that the objectionable order lately issued by the Comptroller of Customs has been rescinded, and one less objectionable substituted.

The progress of the campaign to indemnify pharmacists against legal actions arising out of the sale and dispensing of drugs, etc., has now reached the stage that several States have adopted a method of defence, which has been thought best suited to their own special requirements.

The Committee appointed to revise and publish the Australasian Pharmaceutical Formulary concluded its labours in October, 1911, during which month the Formulary was published. It is fair to them to say that much detail work had to be expended on the rough draft presented to the Sydney Conference before it was ready for publication. As it is probable that the A.P.F. will require considerable revision and amplification in the near future, the pharmaceutical bodies in the Commonwealth and New Zealand must be prepared to give a greater amount of attention to it than they have done hitherto.

It is gratifying to know that the methods adopted by the different Societies and individual pharmacists to make the merits of the A.P.F. preparations known to medical men have met with some measure of success, and several of these preparations have acquired a high reputation. Much yet remains to be done in this direction.

It is a matter for regret that the Royal Commissioner on Foods and Drugs Standards, who has recently completed his sittings, has not altogether seen eye to eye with the pharmaceutical witnesses in recognising the utility of the A.P.F.

The existing Constitution and Rules of the Conference, which were hastily drawn up at the Brisbane meeting in 1909, have been found unworkable in several respects. A resolution to amend them will be moved by the Victorian Association at this meeting. The suggested alterations have been placed before the subscribing bodies associated with the Conference.

An application from Pharmaceutical Defence Limited to appoint representatives to the Conference will be laid before you.

Early in the present year a letter was sent to all Pharmaceutical Associations in the Commonwealth and New Zealand asking for papers to the present meeting. I regret to say that the response has been very disappointing.

In conclusion, I have to thank the Secretaries of the different Societies and Boards for their very willing assistance and co-operation during the past two years, and especially Mr. Shillinglaw, who has charge of the local arrangements in Melbourne.

Financial Statement.—The financial statement of the Treasurer (Mr. Geo. Watkins), was read by the Secretary. Receipts totalled £38 17s. 2d., and expenditure £7 3s. 10d., leaving a balance in hand of £31 13s. 4d. On the motion of Mr. Towl, seconded by Mr. Tilly, the financial statement was received and adopted.

Amendment of Constitution.

The Chairman said the Pharmaceutical Society of Australasia had given the required six months' notice to rescind the existing Constitution and Rules and to adopt a new one. Copies of the proposed amendments had been supplied to each of the States. He proposed to take a motion for the adoption of the new Rules *in globo*, and then allow amendments to be moved as each Rule was reached. As each State only had one vote, it would be necessary to appoint delegates to exercise that power. The following delegates were appointed:—

New South Wales.—Mr. Gray.
Queensland.—Mr. Mackay.
South Australia.—Mr. Young.
Western Australia.—Mr. Tilly.
Victoria.—Mr. Bailey.

Mr. E. T. Church, in moving the adoption of the new Constitution and Rules, said that the main idea was to eliminate all reference to trade matters. It was also desired to put the Conference on a sounder basis. He was not in a position to say how the new Rules would work out, but they had been drafted by Mr. Shillinglaw after careful consideration, and he had every confidence in moving that the Constitution and Rules be adopted *in globo*. Mr. H. B. Taylor seconded the motion.

Mr. Bailey moved an amendment, adding to the objects of the Conference: "To promote the commercial condition of pharmacy and the education and training of pharmaceutical students." He considered that delegates would not travel long distances to attend Conferences if only abstruse scientific questions were discussed. Mr. Gray (N.S.W.) seconded the amendment. Mr. Hector strongly urged the inclusion of commercial matters. Mr. Young (S.A.) regretted that he could not see his way to support the amendment. Mr. Chater (Q.) said they must be careful to retain their connection with the Science Association, which was the matrix of the Conference. Mr. Forbes (Q.) said he thought that the words "for the discussion of subjects of general interest to pharmacists" met the case. Mr. Chater (Q.) thought that the words "to consider the improvement in the commercial conditions of pharmacy" would be a better wording. Mr. Bailey said he would accept the suggestion. Mr. Towl (Vic.) pointed out that the Conference had very little power to vary the actual conditions of pharmacy. He did not see that any object would be gained by the amendment. Mr. Cowley (Q.) supported the Rules as drafted. They were sufficiently wide to cover any questions of value which might be raised. Mr. Forster (N.S.W.) saw no harm in the amendment, but after all the Conference had no power to make hard and fast rules. It could only make recommendations. Mr. Mackay (Q.) opposed any alteration. He objected to the inclusion of commercial subjects. Mr. Fox (S.A.) said the proposed amendment was superfluous. The amendment was put and lost. A discussion took place on the question of retaining the words: "Membership of the Conference shall not be considered as conferring any guarantee of professional competency." Mr. Mackay (Q.) proposed, Mr. Towl (Vic.) seconded, that the words be eliminated. The motion was lost. An amendment, moved by Mr. Towl, seconded by Mr. Chater, was carried, providing for three months' notice to the State Societies of any proposed alteration in the Rules. Mr. Ward (Q.) asked whether provision should not be made to provide for an alteration on a unanimous vote. Decided not to make any provision for this, as it might give an opportunity for a catch vote. A verbal alteration was carried making it optional, instead of compulsory, for the State Societies to appoint a local Secretary. Mr. Forster (N.S.W.) moved, Mr. Gray (N.S.W.) seconded, that the Treasurer shall pay all accounts of the Conference vouched for by the General Secretary. Carried. The Constitution and Rules as amended were then put to the meeting and carried unanimously.

The Retiring President's Address.

Mr. A. Wadsworth (N.S.W.) then delivered his presidential address. He said:—

I have great pleasure in welcoming you here in Melbourne, and I sincerely trust that your combined efforts will make this meeting a successful one.

Since we met last in Sydney several very important matters have eventuated in the pharmaceutical community of Australia.

First, I will mention the fact that the Pharmaceutical Society of Great Britain has accepted the certificates issued by the Pharmacy Boards of Queensland and Victoria, and there is every prospect that further Australasian Boards will also be recognised by that Society; in fact, it is difficult to understand why this has not yet been done. Some delay has occurred which is certainly not due to the fault of Australia. I may mention that the Pharmacy Board of New South Wales wrote to the Pharmaceutical Society of Great Britain over 9 months ago, giving full particulars of all matters in connection with pharmacy in New South Wales, and asking that reciprocity be accepted. The only reply received is a letter stating that the New South Wales' letter had been received and would be placed before the Council. Since then no further word has been heard. Reciprocity with the Pharmacy Board of New Zealand is another pleasing matter. I am very glad that at last there is the greatest probability of all our Australian Boards coming to terms, New South Wales having already completed arrangements. I feel sure that the time will not be far distant when recognition of the *qualified pharmacist* will be acknowledged right through the British Empire. Let us work for that, and our combined efforts will see us through.

The Australasian Pharmaceutical Formulary has been issued since the last meeting. A short delay occurred in the publication owing to the unfortunate fire at a Sydney printers, into whose hands the original draft of the Formulary had been put for an estimate of cost of printing. Owing to the energy of the Hon. Secretary, Mr. Cowley, and his associates, and to whom great credit is due, the difficulty was, however, quickly overcome. You will be asked at this meeting

to consider and adopt various alterations and additions to the Formulary, so as to make it still more valuable to pharmacists and doctors.

Early Closing.—A wave of more or less successful attempts in this matter has swept over Australia. Nearly every State has accepted the motto that the old state of affairs, when the chemist sold a halfpenny stamp at 1 o'clock in the morning with a smile thrown into the bargain, should stop. Legislation has stepped in in most instances, and has helped the pharmacist to come to an adequate and reasonable understanding in reference to earlier closing without disturbing the public in their legitimate wants. It is easy to say that the pharmacist should shut up at 9 or 7 or 6 or at 1 o'clock, but it is anything but easy to make a law suitable for the conditions of the various places. It is easy enough to make a law that the only chemist in a town of 200 inhabitants shall close his shop at 6. Every person from the 3-years'-old toddler up to the famous oldest inhabitant knows where to find the chemist after he has closed his shop, and no difficulty whatever will occur. Urgent medicines can be had from him at any moment. But a vast amount of difficulty is experienced when making such a law for a town of half a million inhabitants. It is an unfortunate fact that the Government, in whose hands such legislation must rest, will not always confer with those persons who, through their acquaintance with the business, are best able to advise. The consequence must be, of necessity, that most crude legislation is sometimes placed before Parliament, which must be fought on behalf of the public. No reasonable pharmacist will object to close his business earlier than he has done for many years, but if such benefit is given by clauses making the Bill an impossible one (in fact, in some cases depriving nearly half the community of medicine from 1 o'clock on Saturday till 8 o'clock on Monday), without regard to public urgencies—then it is time that reasonable persons do their utmost to prevent such legislation being passed into law. Brisbane has done well in this respect by combination, establishing a central co-operative pharmacy where all urgent medicines and medicinal appliances can be had at any hour at night. This again is most difficult to arrange in a large town like Melbourne or Sydney. And surely the public is entitled to demand that in case of necessity they may obtain medicine at any time.

Wages Board.—This matter is also one which had to come wherever assistants are working. It is right that the assistant should be protected against unreasonable demands on the part of the employer. The difficulty is experienced by just as unreasonable demands on the part of the assistant. It is useless to appoint men to sit on Wages Boards who are instructed to demand certain impossible arrangements and not to budge from that instruction. Serious trouble is bound to follow such a course of proceedings. In our business of pharmacists it is still more difficult to come to an equitable arrangement between employer and assistant. Ours is a special business which cannot be compared with any other one. We must attend to the public wants at any time during the 24 hours of the day, the employer cannot do it all, and he has to employ an assistant to help. It is therefore hardly possible that an assistant shall not be employed after closing hours. Our business cannot be compared with others. Every one of our assistants will one day become his own master. There are only very few exceptions, but that cannot be said of the grocer, baker, draper, etc., very few of whose assistants ever get a chance of opening a business for themselves. We require more give and take policy between the employer and assistant in our business than in any other.

A very interesting feature has sprung up during the interval between the meetings in the shape of Chemists' Defence against attack. We are unfortunately open to blackmail in many shapes, more so than most other classes of business men, and it is right that defence against such attacks be organised. In some States, such as New South Wales, for instance, a defence fund is automatically created by the Pharmaceutical Society of New South Wales, and good work has been done. The very first month after the fund was created not less than 6 cases of attempted blackmail were reported to the Secretary. The matter was at once given into the hands of the Society's solicitor, who replied to the blackmailer, with the result that this gentleman dropped the matter entirely. He had hoped to find a defenceless weak chemist, and was somewhat surprised to find that he was up against a strong Society. Victoria has gone further in this matter by establishing a special Society for the purpose of defence. I understand that we shall be favoured with a paper on the subject later on. The present move is strongly supported by one of the Australian Insurance Companies, which is ready to insure the individual chemist against prescribing errors, etc. Such an insurance is really the best possible way to secure the chemist against attack.

Education of the Young Pharmacist.—The delegates from the various Boards assembled here will, no doubt, discuss this matter very fully in the thorough manner in which it has been discussed on former occasions. Every one of us benefits by these meetings, and specially our young pharmacists will benefit by such discussions and by the following results:—We can compare the workings of the Boards in their various States, adopt any point which another State may show us. The ripe experience of years is worth far more than any hot head can conceive. It is a pity to see that now and then the very best plans for the future of our young men are flouted from some pettifogging selfish reason. It is just here where the experience tells.

The matter of poisons legislation will, in all probability, have to be discussed by you. You will be aware that since our last meeting fresh legislation has been introduced in South Australia. It may be rather early to suggest a Poisons Bill for the whole of Australia, but it appears to me to be feasible. We know that shortly the Parliaments of the various Australian States will be asked to pass the same Pure Food legislation; I think the same might be done re Poisons legislation. The requirements in this direction right through Australia are fairly the

same, and the conditions obtaining in West Australia will hold good in Queensland, etc., etc. We differ from the densely populated countries of Europe, and poison legislation passed there will not cover our requirements as to such laws. But we here know what we require, and Government will be well advised to listen to what our experienced men have to say in this matter.

You will be asked to consider an alteration of our Constitution. Drafts of these alterations have been distributed, so as to shorten the discussion. I wish to say on this point that the Constitution was hurriedly made 4 years ago on a pleasure steamer in Brisbane, and a reconsideration on the clauses is welcome.

I must thank the General Secretary and Treasurer and the local Secretary for the great assistance they have given me during my two years of holding office. Virtually, the work of the President mainly occurs during the actual sitting of the Conference, after that the bulk of the work falls on the shoulders of the General and local Secretaries, and it is their excellent assistance and the co-operation of the members who attended the last Conference that has made my office a pleasure and honour to hold.

I will not keep you any longer away from your work, but before finishing my remarks, as your retiring President I have great pleasure in inducting our new President, Mr. Bailey, who, according to our Constitution, will be our President for the next period until we meet again in Conference.

Induction of New President.

Mr. A. R. Bailey was then formally inducted by Mr. Wadsworth, and congratulated the Conference on having such an able President as Mr. Wadsworth. He only hoped that he would be able to carry out the duties in the same satisfactory manner.

Election of Treasurer.

On the motion of Mr. Forster, seconded by Mr. Towl, Mr. George Watkins (Q.) was unanimously re-elected Treasurer of the Conference.

Election of General Secretary.

Mr. Cowley was nominated for the position, but stated that in proposing the separation of the secretarial duties into two divisions his idea was that the business portion of the work should be handed over to someone else. Mr. Ward (Q.) moved, Mr. Chater seconded, that Mr. Shillinglaw be appointed. Mr. Shillinglaw said that in view of his proposed early retirement he could not accept the position. Mr. Ward (Q.) moved, Mr. Gray (N.S.W.) seconded, that Mr. C. L. Butchers be appointed General Secretary. Carried.

Election of Scientific Secretary.

Mr. Cowley was nominated by Mr. Towl (Vic.), and seconded by Mr. Young, as Scientific Secretary.

Date of Next Meeting.

On the motion of Mr. Chater, seconded by Mr. Ward, it was resolved that the next meeting of the Conference be held at the same time and place as the next meeting of the A.A.A.S. (Hobart, in January, 1916.—Ed., A.J.P.).

Auditors.

Messrs. A. B. Chater and J. W. Ward were elected Conference Auditors.

Publication of Papers and Reports.

Mr. C. L. Butchers was appointed with authority to prepare reports for the press and to endeavour to secure the publication of the papers read at the Conference in the Proceedings of the A.A.A.S.

Honorarium to General Secretary.

Mr. Pickford (Vic.) moved that an honorarium of fifteen guineas be voted to Mr. Cowley, the retiring General Secretary, in recognition of his valuable work during the past two years. Mr. Wadsworth seconded the motion, and alluded to the large amount of work Mr. Cowley had done, particularly in connection with the A.P.F. Messrs. Tilly, Fox, and Mackay supported the resolution, which was carried with acclamation and duly acknowledged by the recipient.

Conference Prize for Scientific Work.

Mr. Towl (Vic.) moved that the Conference award a prize, valued at £5, to be competed for by *bona fide* pharmaceutical students throughout the Commonwealth and New Zealand every two years. He felt very much the necessity for stimulating advanced pharmaceutical work amongst pharmaceutical students. There was ample room for original research work, and this prize might be the beginning of something more advanced later on. He thought that if the resolution met with approval, a small Committee might be appointed to report to the next sitting of the Conference. Messrs. Tilly, Chater, Wadsworth, Ward, and Hector endorsed Mr. Towl's motion, which they thought might arouse a greater interest amongst students as to the necessity of a course of post graduate work. The motion was carried unanimously, and Messrs. Young, Gray, Cowley, Tilly, Towl, and Butchers were appointed a Committee to discuss the matter and report to the Conference at the next sitting.

The Conference at 5 p.m. adjourned.

SECOND AND THIRD DAYS.

Wednesday and Thursday, January 8 and 9, were devoted to the reading of papers at the University in connection with Section B (Pharmacy) of the Australasian Association for the Advancement of Science. Eight papers were read in this section, and are printed elsewhere in this issue. The time at the disposal of those present did not permit of a lengthy discussion, but the papers were followed with interest. Mr. J. H. Evans (Liverpool), forwarded an interesting letter on Drug Cultivation, in which he pointed out that the Dominions Royal Commission was at present taking evidence on the subject, and this carried the matter into the region of practical politics. He understood that this Commission intended visiting Australia, and he thought that the matter might then be brought under their notice. Many drugs might be cultivated in Australia, but before cultivation could be successfully carried on commercially, experimentation by scientists on the spot as to nature

of soil, climate, etc., would be desirable. Every facility should be given to carry on the work of investigation by local Governments, through the medium of Botanical Gardens, Colleges, etc. The communication was received with interest, and various speakers described what had been done in Victoria to encourage drug cultivation during the past twenty years. No formal resolution was arrived at, but Mr. Evans was thanked for bringing the matter under notice, and the various States undertook to keep the subject in view should an opportunity occur to further the objects Mr. Evans had in view in placing his communication before the Conference.

FOURTH DAY'S PROCEEDINGS.

The Conference assembled at the College of Pharmacy at 10 a.m. on Friday, January 10. Mr. Bailey presided, and there were also present Messrs. Cowley, Pickford, Buckhurst, Shillinglaw, Forbes, Vale, Lenehan, Mackay, Chater, Fox, Symonds, Baird, Gulliver, London, Sobee, Young, Forster, Gabriel, Gray, Wasley, Rodger, Wadsworth, Hector, Towl, Imes, Leete, Craig, and Butchers.

Mr. Gray read a paper entitled "A Laboratory Note on a Supposed Alkaloidal Metamorphosis," by Mr. T. I. Wallas, Sydney. The paper, which is published elsewhere, elicited an interesting discussion, the general opinion being that while Mr. Wallas' deductions might lead to an important discovery, further proof was necessary that the tests had been carried out in such a manner as to leave no ground for suspicion that the metamorphosis had occurred through the introduction of some foreign element. Messrs. Bailey, Cowley, Mackay, Towl, and Hector contributed to the discussion, at the close of which a hearty vote of thanks was passed to Mr. Wallas for his paper, and the hope was expressed that he would carry on his investigation and contribute a further paper at the next Conference on the same subject.

The Conference Medal.

The General Secretary presented the following report of the Committee appointed to draw up the conditions in reference to the Competitive Examination for the prize of £5 to be awarded to pharmaceutical students biennially by the Conference:—

Report of Committee appointed by the Conference on January 7th to draw up conditions in reference to the competitive examination for the prize of £5 to be awarded biennially by the Conference.

The Committee met at 2 p.m. on 8th January. Present: Mr. Bailey (in the chair), and Messrs. Towl, Cowley, Young, Tilly, and Butchers.

Mr. Young outlined the principles of the scheme in operation in South Australia in connection with the Pharmaceutical Society's gold medal.

Mr. Towl explained that his object in moving the resolution was to encourage pharmaceutical students to undertake original work and study in advance of the ordinary College curriculum. He thought that the prize would ultimately be regarded as the blue ribbon of pharmacy.

Mr. Cowley submitted some notes on a post graduate course for pharmacists, and pointed out that ultimately the awarding of the prize suggested would lead to some such course being established.

After discussion, the following conditions were agreed upon, and are recommended to the Conference for adoption:—

1. That a prize to the value of £5, consisting of a gold medal and books be offered, open to all students in pharmacy who have completed their apprenticeship, or who have passed their final examination not less than two years before the 31st December following the date of holding the examination.
2. That the first examination for the medal be held during the last week in October, 1914, in each of the State capitals, and in Wellington, New Zealand.
3. That the examination shall consist of written work only.
4. That the subjects of examination shall be as follows:—1. Botany—Structural, physiological and geographical. 2. Chemistry—Organic, inorganic and biochemistry. 3. Materia Medica. 4. Pharmacy.
5. That the following text-books be recommended to students:—
   Botany—Strasburger's Text Book of Botany.
   Chemistry—Cohen's Theoretical Organic Chemistry, Alexander Smith's Inorganic Chemistry, Phillip's Physical Chemistry.
   Material Medica—White and Humphrey's Pharmacopedia, Greenish's Materia Medica.
   Pharmacy—Lucas—Practical Pharmacy, Caspari—Practical Pharmacy.
6. That Mr. R. C. Cowley, Brisbane, be appointed examiner for the first examination, with power to call in any assistance.
7. That candidates desirous of entering for the examination must notify the General Secretary on or before 31st July, 1914, to that effect, and sign the prescribed entry form.
8. That the supervision of the routine work in reference to the conduct of the examination be left in the hands of the General Secretary.

A. R. Bailey, Chairman.

Mr. Cowley said that the report covered the whole of the ground, and the suggestion was a good one, which might lead to something better later on. The subjects of the examination were slightly beyond the scope of the final examination of the different Pharmacy Boards. He moved the adoption of the report, with the proviso that he be allowed to recommend an additional text book in chemistry. The object was to produce men a little bit better than the ordinary run of pharmacist. Mr. Gryst (S.A.) seconded the resolution, which was supported by Messrs. Gray, Pickford, and Forbes, and carried unanimously.

Pharmaceutical Defence.

The Chairman then called on Mr. F. Buckhurst (Vic.) to deliver an address on "Pharmaceutical Defence," and in doing so referred to the active part which Mr. Buckhurst has taken in connection with the movement. Mr. Buckhurst said that he would divide his address into three headings: (1) The circumstances which led to the formation of the P.D.L.; (2) The reasons why the P.D.L. evolved on its present lines; (3) The aims and objects which the directors hoped to accomplish. Under the first heading he described the recent case against Mr. Gough, and the action Victorian pharmacists took to relieve that gentleman of some of the financial burden which unfortunate circumstances cast upon him. Under the second heading, he explained the various defence schemes which had been considered, and the reasons why the scheme adopted had been found the most likely to be successful. A detailed statement of the concessions gained and the work the P.D.L. had already accomplished was then entered into. Under the third heading, Mr. Buckhurst spoke of the relationship of the P.D.L. to the Pharmacy Board and Pharmaceutical Society. To work in harmony with both those bodies was the constant aim of the directors. They all had the welfare of their fellow chemists at heart, and a good deal of work to perfect the organisation of pharmacy still remained to be done. The pharmacist must be educated as to what were the relative duties of the various pharmaceutical organisations. It was a mistaken idea to imagine that the Pharmacy Board existed to look after the interests of chemists only. Its first duty was to the public. It had to administer Acts of Parliament as it found them without fear or favour. Pharmacists therefore had not a proprietary interest in the Pharmacy Board because they elected the members of that body. His conception of the P.D.L. was that it was a link between the Board and the Society. The Pharmaceutical Society was undertaking a good work in the education and training of the young pharmacist. The P.D.L. had provided a ready means of defence against errors, which were liable to happen to even the most careful and conscientious pharmacist. On this ground alone its formation had been fully justified. The moral effect of having a strong company behind him helped the pharmacist to repel unjust claims. Another object was to educate the pharmacist to educate the public. Very erroneous ideas were current as to the profits which chemists were thought to make. He instanced cases of this, and showed in what directions the individual chemist could help to remove mistaken ideas of this sort. In conclusion, he paid a tribute to the large amount of work which the Secretary (Mr. Butchers) had done in connection with the P.D.L. movement, and he believed that a great deal of the success was due to his enthusiasm and the able manner in which he had carried out his duties in the difficult negotiations which had to be undertaken. He, the speaker, had only been the mouthpiece, and to his fellow directors he owed a great deal for their cordial assistance and sound advice. (Applause).

Mr. Bailey said he had great pleasure in proposing a hearty vote of thanks to Mr. Buckhurst, who had thrown himself heart and soul into the defence movement, and to whom a great deal of its success was due. Mr. Fox (S.A.) seconded the resolution, and congratulated Mr. Buckhurst on the able and lucid manner in which he had described the movement. He only wished that Mr. Buckhurst would come to South Australia and infuse some of his enthusiasm into local pharmacists. The Defence Association in his State had not yet become a live body, but he intended on his return to revivify it, and the ideas thrown out by Mr. Buckhurst would, he thought, enable him to do this with every prospect of success. Mr. Wadsworth (N.S.W.) expressed his thanks on behalf of the New South Wales delegates for the excellent address he had listened to. It was one of the principal reasons of his coming to the Conference. As far as New South Wales was concerned, the Pharmaceutical Society had formed a Defence Fund in 1898, and they had had ten calls on that fund, all of which were settled satisfactorily. They also had a flourishing P.A.T.A. in his State, which undertook valuable work on behalf of pharmacists. So much depended on the Secretary in matters of this kind. It was not easy to find the right man in the right place. Victoria had been fortunate in this respect. He had been inclined to think that it was best to confine the defence work to the Pharmaceutical Society, but since hearing the discussion he had come to the conclusion that a separate body with specific objects and a common platform was desirable. On his return he would go into this question again. Mr. Gryst (S.A.) expressed his pleasure at hearing Mr. Buckhurst's address, and hoped that South Australia would develop the movement on similar lines. Mr. Tilly (W.A.) said he was convinced a separate organisation was best. It was undesirable to bring in anything else. A definite defence movement could be best undertaken on the lines the P.D.L. had adopted. He hoped to see the movement inaugurated in his State at an early date. Mr. Gulliver (Vic.) referred to what the P.A.T.A. was doing in New South Wales. He believed a similar movement should be again tried in Victoria. Mr. Mackay (Q.) said that they had incorporated their defence scheme in the new central pharmacy. It was on similar lines to the P.D.L., and he acknowledged that all they had done was due to the excellent initiative taken by Victoria. Mr. Towl (Vic.) said that what had been accomplished in Victoria in four months was little short of marvellous. The P.D.L. was doing a great work, and he was glad to say it met with the support of pharmacists generally. He showed where it filled a want which had been long felt, and referred to one of the principal objects, namely, to encourage legitimate and discourage illegitimate practice. (Applause). On the Pharmacy Board devolved the duty of administering the Act. They were trustees for the public. The Council was carrying out an important educational policy, whilst the P.D.L. might be said to be the best body to look after the commercial side of pharmacy. In this connection he referred to the

work which had already been done. He hoped the delegates would return to their respective States fully seized with the importance of the P.D.L. movement, which, with its well defined objects, was necessary to complete the work of organisation throughout the Commonwealth. Mr. Hector (N.S.W.) spoke of the importance of fostering this work of organisation, the importance of which could not be too fully recognised. It was the keynote of the future, and he was extremely glad to have been present to listen to such an interesting address, followed by so excellent a discussion. Mr. Forbes (Q.) said he quite agreed with the remarks of previous speakers that the P.D.L. was a link between the Board and the Society. The work which could be done by these bodies was extremely limited. He hoped the P.D.L. would be successful in its efforts to reduce the amount of unqualified practice, which was a slur on pharmacists as a whole. Mr. Butchers (Vic.), referred to the rapid growth of the P.D.L. He did not claim any special merit for the success of the movement, as he had been assisted by a good board of directors, all of whom were keen business men. Had it not been for the enthusiasm of the Chairman he would scarcely have seen his way to undertake the work. The scheme was an excellent one, and though many difficulties had had to be overcome he was glad to say they were now in smooth waters. One of the aims of the future was to perfect as far as possible the work of organisation. In this sphere he believed the P.D.L. would play an important part. Had it not been for the warm co-operation and harmonious relationship with both the Board and Council he did not think the movement could have succeeded. (Applause.) Mr. Bailey, in conveying to Mr. Buckhurst the vote of thanks, referred to the excellent debate which the address had evoked, which showed the great interest taken in the movement all throughout Australia. Mr. Buckhurst, in responding, said that the desire of the directors was to do their utmost for their fellow pharmacists. He intended shortly taking a trip through the Commonwealth, and anything he could do to assist the different States he would gladly do.

Pharmaceutical Co-operation.

Mr. G. J. Mackay (Q.), read an interesting paper on "Pharmaceutical Co-operation," which is published elsewhere. The Chairman moved a hearty vote of thanks to Mr. Mackay, which was seconded by Mr. Wadsworth and carried unanimously.

Mr. Wadsworth (N.S.W.), speaking on the paper, elaborated the form of co-operative buying which New South Wales pharmacists had evolved. To his mind the co-operative movement had a great future, and the experience in his State was that it had proved a tower of strength in meeting the competition of the company pharmacies. They were successful in securing the active support of Mr. D. J. Williams, through whose efforts the co-operative system had been brought to so successful an issue. He explained the difficulties which had to be contended with in regard to early closing and wages boards, and the large amount of time which individual pharmacists had given in keeping these movements within proper bounds. Mr. Mackay's paper was an excellent one and brimful of ideas. The central pharmacy scheme was a good one, but he was doubtful how it would apply to a large city like Sydney. The difficulty of coping with urgent prescriptions was not easily overcome, and at present he must admit he saw no solution of the problem. Mr. Tilly (W.A.) supported the resolution, and pointed out the value of co-operation in the manner elucidated by Mr. Mackay. Mr. Mackay expressed his thanks to those who had spoken. He had greatly enjoyed the morning's discussion, and was pleased to see the great interest taken in matters of this sort.

The meeting, at 12.40 a.m., adjourned, and photographs of the delegates were taken.

The Conference re-assembled at 2 p.m.

Mr. W. G. Piper read a paper on "Methylated Spirits," which is printed elsewhere.

Mr. Bailey moved that a vote of thanks be accorded to Mr. Piper. In seconding this Mr. Towl referred to the methylated substance pyridine causing an objectionable smoking in the burette, and he thought it would be an advantage if spirit used for pharmaceutical purposes were methylated with wood alcohol. Mr. Chater supported the resolution. Mr. Mackay congratulated Mr. Piper on his paper. He had fortunately been able to have an interview with the Minister of Customs, and he intended to try and see Mr. Wilkinson, the Commonwealth Analyst, before he returned.

A.P.F. DISCUSSION.

Mr. R. C. Cowley presented a report on the new edition of the A.P.F., dealing with the various formulæ seriatim. At the conclusion of the report the Chairman congratulated Mr. Cowley on the satisfactory results which had followed the publication of the work, and stated that out of 62 preparations in the book he himself had had 36 ordered by medical men. He proposed a hearty vote of thanks to Mr. Cowley. Mr. Church, in seconding the vote, said that the original suggestions for the publication of a formulary came from Mr. Cheshire in 1899. That gentleman, together with Mr. Rankin and himself, were returning from a pharmaceutical meeting, when Mr. Cheshire suggested that pharmacists should try and do something to break the habit of doctors ordering proprietary articles in medicines. It was then decided to try the experiment. An effort to induce the Pharmaceutical Society to take the matter up was unsuccessful. It took about three years to get the movement going. The work was started with five formulæ. The Society then wrote to the other States. At first New South Wales and Queensland took no interest in it, and but for the enthusiasm of Mr. Young, in South Australia, the whole thing might have lapsed. Gradually the other States came in, and he was proud to think that the little effort originated in such a humble way 14 years ago had met with such success.

Mr. Rankin explained the methods adopted in Victoria to make the formulary more widely known. He thought it would be a great advantage if the same procedure were followed in all the States. Mr. Young (S.A.) said that there was no doubt that Messrs. Church, Rankin, and Cheshire were the originators of the A.P.F., and as such deserved the warmest congratulations. Mr. Forbes and other delegates spoke concerning various formulæ in the present edition. Mr. Cowley moved, Mr. Gray seconded: "That a Committee be appointed in each State to consider the modification of the present Formulary and the addition of new formulæ to the present volume as soon as possible." Carried.

The Chairman referred to the list which the Commonwealth Government had issued, in which certain requisites were recommended to be obtained in connection with the Maternity Bonus scheme. Under the heading of disinfectants, Lysol and other proprietary disinfectants were mentioned. He suggested that a synonym should be found for Liquor Cresolis Compositus. Several names were suggested, including Cresco, Sapol, Fectol, Kresan, Natol, Kempsol. On being put to a vote, Fectol was chosen. It was

then resolved, on the motion of Mr. Fox, seconded by Mr. Gray, that the name Fectol be added as a synonym of Liquor Cresolis Compositus. The question of having Fectol included in the Commonwealth list was left in the hands of the various Pharmaceutical Societies. A synonym for Cataplasma Kaolin was asked for, but no one seemed prepared to suggest a suitable word, and the matter dropped.

Mr. Shillinglaw read the financial statement of the A.P.F. The receipts totalled £112 10s., and the expenses £93 3s. 1d., leaving a balance in hand of £19 6s. 11d. Mr. Rankin moved, Mr. Chater seconded, that the balance be paid over to the Treasurer of the Conference, with permission to use as much as required for research work in connection with the A.P.F. Carried.

Paper on Optics.

The Chairman said that Mr. Robert Tocher had forwarded a paper on "Optics for Chemists." He asked whether the Conference would like to have it read at that stage. Mr. Tilly moved, Mr. Towl seconded, that the paper be taken as read, and that a synopsis be published in the Journals. Carried. A vote of thanks was also passed to Mr. Tocher for his contribution.

Local Science Committees.

Mr. Towl moved: "That the Scientific Secretary be asked to take steps by communicating with the Secretaries of the Pharmaceutical Societies, requesting them to form local Science Committees to encourage investigation in pharmaceutical research."

He pointed out that the Conference should do its part in endeavouring to encourage research work. The absence of scientific papers at the Conference from all the States except one or two was most noticeable. If each State Society took the matter up it might result in finding some of the younger pharmacists who would devote some of their leisure time to research work. The best means of bringing this about was to encourage local investigation, and he thought the best method of carrying out the idea was to appoint local Science Committees in each State. Mr. Chater (Q.) seconded the motion, which, he said, was a good one. The only difficulty was where was the money going to come from? The resolution was carried.

Increasing the Subscriptions.

Mr. Lenehan (Q.) raised the question of increasing the Societies' contributions. He thought more funds were required, and that the Conference should pay the travelling expenses of the various officers. The Chairman said he thought the matter was one for the State Societies to deal with, and that it would be unwise to increase the subscription at the present time.

Visit of the British Association.

Mr. Chater asked whether it was intended to take any action as a Conference in connection with the visit of the British Association in 1914. Mr. Bailey said he did not think the Conference could do anything. Each of the States would be visited, and if anything were done it would have to emanate from the State Societies.

Votes of Thanks.

On the motion of Mr. Towl, seconded by Mr. Fox, votes of thanks were accorded to the Chairman and the various officials. Mr. Bailey briefly responded, and the visiting delegates expressed their appreciation of the kindness and hospitality extended to them during their stay in Melbourne. Mr. Cowley referred to Mr. Shillinglaw's interest in pharmaceutical matters, and concluded by wishing him long life, good health, and a full enjoyment of that leisure to which he was justly entitled after so many years of strenuous labour. Mr. Shillinglaw responded and referred to previous Conferences with which he had been connected, notably the memorable Intercolonial Conference of 1886 and the Conference of Examiners in 1903. He was glad to hear that the present Conference had been regarded as successful, and had done all he could to contribute to that result. It would probably be the last Conference that he would take part at, and he would always look back with pleasure to the pleasant associations he had formed both at this and previous Conferences.

Confirmation of Minutes.

Mr. Tilly (W.A.) moved, Mr. Gray seconded, that the Minutes of the Conference, as recorded by the General Secretary, be taken as read, and that the President be authorised to sign same as correct. Carried.

This concluded the official business, and the Conference at 5.10 p.m. adjourned.

THE OFFICIAL DINNER.

The visiting delegates were entertained at dinner at the Vienna Cafe on Wednesday, January 10th. The President of the Pharmaceutical Society of Australasia (Mr. A. R. Bailey) occupied the chair, and in addition to the visitors there were present Messrs. Towl, Potts, Hector, Sobee, Gulliver, Wasley, Pleasance, Pickford, Leete, Cossar, Fripp, Junr., Plowman, G. Francis, Burroughs, Shillinglaw, Champion, Baird, Imes, Piper and Butchers. An excellent dinner was provided. The Chairman proposed the toast of "The King." Dr. Sidney Plowman was entrusted with the toast of "The Visitors," and in a brief and felicitous speech referred to the pleasure which it gave to Victorian pharmacists to welcome the visiting delegates, who had come from all parts of Australia to take part in the important deliberations of the Conference. He extended to the delegates, both accredited and unofficial, a most cordial welcome on behalf of Victoria, and wished them long health, continued happiness and increased prosperity as the years went by. Mr. A. Wadsworth, President of the Pharmacy Board of New South Wales, responded. Personally it had been a great pleasure to him to come to Victoria and meet old friends once more. At the Conference on the previous day there had been a discussion as to whether the objects should be confined to purely scientific matters. He did not think a conference restricted in that way would be successful. From the social standpoint this interchange of visits had much to recommend it. It brought pharmacists of every State together, and made them know one

another better. Visitors always received a good welcome when they came to Victoria, and he sincerely hoped that this would not be his last Conference amongst his Victorian friends.

Mr. A. B. Chater, President of the Pharmacy Board of Queensland, said that when he attended the Conference of Examiners in Melbourne ten years ago he made many friends, and had a most jovial time. At a similar function held in that same room he had the pleasure of being officially welcomed by Victorian pharmacists. In fact, Victorian hospitality had become proverbial, and he would conclude by repeating an old motto which he had taken to heart, "Say little, serve well and pass on."

Mr. A. L. Tilly, President of the Pharmaceutical Council of Western Australia, said that as a delegate from a far-off State he believed that these Conferences were doing a world of good for pharmacists in Australia. He was very pleased with the present Conference, the work already done being much in advance of former gatherings. In bringing pharmacists together from all parts of Australia these Conferences were doing good work, and for this reason alone deserved every encouragement.

Mr. R. O. Fox, President of the Pharmaceutical Society of South Australia, acknowledged the toast on behalf of his State. In a very humorous speech, Mr. Fox acknowledged the kindness he has received during his visit to Victoria. Union was strength, and he believed that the Australasian Pharmaceutical Conference would in future become a great factor in the development of Federal pharmaceutical thought.

The toast of "The Australasian Pharmaceutical Conference" was proposed by Mr. G. J. Mackay, President of the Pharmaceutical Society of Queensland. He had some diffidence in speaking to the toast because he was a member of the Conference himself. However, he was glad to be able to say that the Conference was now established on a firm basis, and in his opinion it would become an increasing power for good. Each successive meeting has progressed to some extent, and they were gradually getting pharmacy on a proper basis thoughout the Commonwealth. This could only be done by regular meetings, and by co-operation throughout the States. This was his first visit to Melbourne, and although they all felt that possibly the arrangements could have been better made, as it turned out everything had happened for the best. The connection with the Science Congress was somewhat ambiguous. Whilst they developed the conference side of the meeting, they should not neglect the scientific work. He referred to the absence of papers from Victoria and the other States, and trusted that this shortcoming would be rectified at future Conferences. He paid a tribute to the ability of Mr. Shillinglaw, who had been for so many years associated with pharmacy in Victoria, and whose advice to other States on pharmaceutical matters had been so readily given and so highly esteemed. He did not think Victorian pharmacists sufficiently appreciated their Pharmacy legislation. They had only to live in other States to know what disadvantages pharmacists there labored under. To Mr. Cowley also a great deal of praise was due for the work he had done in connection with the Conference, especially in connection with the A.P.F. Victorian pharmacists had not grasped the value of the Formulary. In Queensland they had done a great deal to make the A.P.F. known to the doctors. To him it did not seem as if the other States were fulfilling their duty in this regard. He asked, "What had Victoria done for the Conference? What had New South Wales done? What had South Australia done?"

Mr. J. H. Young: We started it. (Laughter.)

Mr. Mackay: Every State should do something. Let them avoid any semblance of friction. He saw signs of friction in Victoria. In such a case his advice was to trace it to its source and settle it once and for all.

Mr. Bailey, in responding to the toast, said that so many excellent speeches had been delivered that he did not intend to say much. He was glad, however, previous speakers had spoken of the good these Conferences were doing in bringing pharmacists together and breaking down the barriers between one State and another. It enabled them to speak with one voice. The representations made in connection with the recent odious opium regulation were a case in point. There was urgent necessity for unity of purpose and unity of ideas, inasmuch as when the Royal Commissioner on Uniform Standard for Food and Drugs presented his report, combined action would require to be taken to see that the interests of pharmacists were not unduly affected. With regard to the A.P.F., he was glad to say that the new edition might be regarded as a success. It showed medical men that pharmacists were able to make preparations equally as good as the most widely advertised proprietaries. Another matter which would claim their attention in the future would be a National Insurance Bill. From his own knowledge he knew that certain members of the Federal Parliament were now closely studying Mr. Lloyd George's legislation. It was therefore incumbent on every pharmacist to make himself conversant with the details of the English Act, so that when the Bill was brought forward in Australia they would be ready to take action.

Mr. H. W. Potts proposed the toast of "The Pharmaceutical Society and the College of Pharmacy." He said it gave him great pleasure to propose the toast because he was one of the oldest members of the Pharmaceutical Society in the room. His memory went back to those sterling pioneers, Messrs. Bosisto, Blackett, Huntsman, Bowen, Johnson, Brind, and that dear old man, Wm. Witt. All of these were now gone, but their sons were, he was glad to say, taking the place of their fathers. He remembered also the Intercolonial Conference of 1886—probably one of the most important of all the Conferences—which was organised and guided by that prince of organisers, Mr. Harry Shillinglaw, and it was one of his greatest pleasures to meet the old veteran once again at the present function. His capacity and ability were known to them all. The College of Pharmacy was a monument to his enterprise. He would therefore ask those present to drink the toast with enthusiasm, coupled with the name of Mr. Shillinglaw.

Mr. J. C. Pickford responded on behalf of the Pharmaceutical Society, which, he said, was endeavouring to do its share in looking after the interests of pharmacy in this State. Mr. Mackay had taken the Society to task with regard to the A.P.F. He did not think those comments were altogether justified, as he knew from experience the large amount of work which had been done, particularly in the suburban area, in making the Formulary known to the medical profession. He detailed the particular manner in which the work was done, and spoke of the good effects which had followed in places where the A.P.F. itself and samples of the preparations had been brought under the notice of the medical profession. The Pharmaceutical Society was always ready to take its part in bettering the conditions of pharmacy. It seemed to him that the power of pharmacists was underestimated. A few earnest workers by concerted effort could accomplish a great deal, and he strongly urged all those present to take a more active part in the political sphere, especially in connection with matters which affected their mutual interest.

Mr. E. H. Leete said he had great pleasure in responding on behalf of the College of Pharmacy. It was now nearly twenty years since he had attended the College, and on looking back, he was glad to be still able to speak of the great benefit he had derived there. It was not an institution for the individual who did not put his utmost energy into his work, but for those who were earnest in pursuing their studies the College was a tremendous help to them. In addition to the instruction he received there, he had also formed many life-long friendships, amongst whom was Mr. D. McAlpine, their late lecturer in Botany, who, he regretted, was not present that evening.

Mr. Shillinglaw, who rose after repeated calls, said that the toast of the College of Pharmacy was one which he could heartily respond to, as he had been connected with it for nearly thirty-eight years. Previous speakers had answered for the Pharmaceutical Society, but he would like to say a few words about the College, which had been one of his chief objects in life. He thought he could say without fear of contradiction that the College was one of the most successful institutions in Victoria. When it was first projected it was on a very humble scale. At the start they had to find a habitation for it. Messrs. Blackett, Bowen and Bosisto urged the Government to grant a site, and after considerable difficulty, a piece of land in Bowen Street was granted. By a fortunate circumstance the Government were about to demolish some buildings in Swanston Street, and it occurred to him that it would offer an excellent opportunity to acquire the building, which had been occupied as a county court. Acting on this impulse I saw my old friend, the late Mr. Le Cren, who was at that time Secretary for Public Works, and after some negotiations he agreed to sell the building, the price fixed being £400; and you may be sure that when the bargain was secured I lost no time in completing the purchase, the then Treasurer of the Society, Mr. Henry Gamble, having signed a cheque for £400; the money was paid over, and I carried away with me the title to the building which we at present occupy. Although we were the proud possessors of a pile of bricks and mortar, we still had two difficulties to surmount in obtaining the consent of the Crown Law Department to the transfer of the building, and the exchange of the land in Bowen Street to the site on which the building stood in Swanston Street. Through the good offices of the late Mr. H. C. Harriman, then Secretary to the Crown Law Department, the first presented no great difficulties, but the land was a more troublesome job, as for some time the Minister of Lands (the Hon. Walter Madden) raised objection. An idea, however, occurred to me that if a majority of Parliament were in favour of the land being granted, it would greatly help with the Minister. At Parliament House I consulted with Messrs. Blackett and Bosisto, who undertook to bring the matter under the notice of members, with the result that in a few days the signatures of a majority of the members of the House were obtained (this document is still in existence).

A fresh appointment was made with the Minister of Lands when an exhibit of the document signed by the majority of the members of the Legislative Assembly effectually silenced any objection, and the Swanston Street site was shortly afterwards gazetted as a permanent reservation for education purposes, and was vested in the Pharmacy Board and Pharmaceutical Society. This is the history of how the College was acquired, and it was first opened in April, 1885. The College began teaching in a very humble way with only five Pharmaceutical students. Gradually year by year the numbers increased, and the work of the College grew in importance. It had always been my ardent wish to embrace all branches of medicine and pharmacy under the one roof, and this has happily been accomplished, with the result that to-day the College is the only institution in Australasia which carries out a course of instruction in certain subjects to pharmacists, medical students, dentists and veterinary surgeons. The latest development has been a very successful class in optics. In severing my connection with the College I am glad to be able to say that my relations with the lectorial staff has always been of a most harmonious character, and this fact had made my work very much easier. I feel fully rewarded for what I have done for the College in its present splendid prosperous position. (Applause.)

Mr. Cowley proposed the toast of the Pharmacy Board of Victoria. In doing so, he spoke of his knowledge of the work the Board was doing before he came to Australia. He remembered reading in the "Pharmaceutical Journal" that the Pharmaceutical Society had imported one of the best English pharmacists of that time—Dr. Sidney Plowman—to be director of the Melbourne College of Pharmacy. He referred to his first arrival in Australia some four years ago, and to the kind welcome extended to him by Mr. Lacey, Mr. Shillinglaw, and others, and he was afforded an opportunity of seeing for himself the excellent manner in which the members of the Board conducted the examinations. The Victorian Board was the oldest in the Commonwealth, and it has always been directed by their guide, philosopher and friend, Mr. Shillinglaw, to whom they were

all under a great debt of gratitude, and whose efforts to further the interests of pharmacists were so highly esteemed by him, and it gave him great pleasure to add his tribute to the work he had done during the time he had been associated with the Board.

Mr. C. E. Towl (Victoria) responded, and on behalf of the President of the Board (Mr. Lacey), who was unable to be present, thanked those present for the generous manner in which the toast had been received. The position of the Board was of a dual nature. Necessarily as a public body it had to administer the Acts for the benefit of the public. It was bound to carry out its duties and see that the provisions of the Act, as interpreted by the Board, were faithfully observed. At the same time the Board was bound to conserve the interests of the registered pharmacists themselves so long as this did not clash with its duty to the public. The present Conference was a memorable one to him. Pharmacists had gathered from all parts of the Commonwealth to meet together and discuss the advancement of pharmacy. So long as pharmacy could produce men of equal calibre to those represented at the Conference there need be no fear for the future. Everyone had been putting forth his very best effort—each in his own individual way. The work which was being done would redound to their credit as individuals and to their benefit as a class. These Conferences had extinguished the old feeling of enmity which might have existed years ago. There was now a closer union between the pharmacists of the different States, a wider sympathy and a sincere community of interest now binding them all together and drawing out of each individual the best he could put forth in the interests of his fellow pharmacists. It was only by such unity of purpose and such unity of action that anything tangible could be achieved, not only on the ethical side, but also on the commercial side, and he might also add—the political side. Pharmacists might be few in numbers, but they were all highly educated men and men who ought to have some say in the management of the country. He appealed to those present to arouse a wider interest on the part of individual pharmacists in the affairs of the State. On a broad, common platform, the well-being of the whole, they might all unite. Meetings of this kind gave them all something to think about, something to ponder over, and something practical, he hoped, to carry out when they returned to their respective States. (Applause.)

Mr. Wadsworth proposed the last toast, that of "The Chairman," and referred to Mr. Bailey's admirable fighting qualities which had been so prominently in evidence at previous Conferences. Mr. Bailey, in acknowledging the toast, referred with regret to the cause which made him President, the ill-health of Mr. E. T. Church. If he had done anything to make the Conference a success he was quite satisfied. He hoped they had all thoroughly enjoyed themselves, and wished them a safe return to their respective homes when the deliberations of the Conference were ended.

Conference of Pharmacy Boards.

A conference of delegates appointed by the various Pharmacy Boards was held at the College of Pharmacy, Melbourne, on January 9th, 1913, at 2.30 p.m.

Present:—Messrs. Wadsworth and Forster (N.S.W.), Bailey, Towl, and Shillinglaw (Victoria), Chater, Forbes, Mackay, and Ward (Queensland), Fox and Young (South Australia), and Tilly (W.A.)

On the motion of Mr. Tilly, seconded by Mr. Young, Mr. Bailey was voted to the chair. It was decided that the proceedings be open to the press.

Maintenance of Examination Standards as already fixed.—The question was introduced by Queensland, on behalf of which State Mr. Ward pointed out that the Board had faithfully observed the Inter-State agreement of 1903, with one exception, and that was that if a candidate qualified for a single subject, instead of having to take the whole examination again if he failed in that subject, he was allowed to come up for that subject indefinitely. Otherwise the Queensland standard had been maintained in its integrity.

Mr. Young explained that 50 per cent. was the standard for a pass at the Board's examination. South Australian candidates took their Intermediate examination at the Adelaide University, where the pass marks were 50, and in the case of inorganic chemistry 40. If a candidate failed, or passed in dispensing only, he was given a debit or credit. If he failed twice in dispensing, then he had to come up for all subjects again. His Board had not been able to keep to the original agreement, on account of their accepting the certificates of the Adelaide University. Victoria and Queensland had Colleges of Pharmacy, and they could fix their own standard of marks.

Mr. Ward said that in Queensland dispensing was taken first, and if a candidate failed in that he had to take the whole examination again. All the written work was done at the Intermediate examination, the Final being devoted entirely to practical and *vive voce* work. He explained in detail the system of the Queensland examination. If a candidate did not obtain an average of 60 per cent. of the total number of marks he did not secure a pass. The pass standard was 50, with an average of 60 for the whole examination.

Mr. Towl agreed that the Queensland standard was a high one, and it was news to him that the Inter-State agreement had been departed from by Victoria. Dispensing was the most important subject of the examination, and a 50 per cent. pass in that was very low. At the same time some allowance had to be made for nervousness. He was quite in accord in maintaining the standard on the basis of the last conference.

Mr. Chater said that the examinations should all be on an equal basis

Mr. Forbes said that unless this was the case, the position of reciprocity would be seriously affected.

Mr. Tilly said that South Australia had its hands tied owing to its association with the Adelaide University.

Mr. Bailey asked if the attendance at lectures in Queensland was compulsory.

Mr. Ward said it was not, but that candidates could not pass their examination unless they attended lectures.

Mr. Young said it was the same with South Australia. Out of 100 men, 98 would find it necessary to attend the lectures.

Mr. Tilly explained that in Western Australia the candidates attended lectures at the Perth Technical School. It took them two years to get through the Intermediate. They then had to take a course for the Final. This consisted of a year's study at the Technical School. Students had to attend 75 per cent. of the lectures. They had to pass on the 50 and 60 per cent. standard. If they failed in dispensing they went right out. Every subject, except pharmacy, was taken both in the Intermediate and Final.

Mr. Shillinglaw explained why Victoria had departed from the agreement re dispensing being a compulsory subject in which a pass had to be obtained. The Board had decided a short time ago to treat dispensing on the same footing as the other subjects, and now if a candidate failed in dispensing, and passed in the other subjects, he could take dispensing as a single subject.

Mr. Forbes asked why the original agreement was departed from.

Mr. Towl said that the recent regulation was a break-away from the Inter-State Agreement. He thought there would have to be a reversion to the old practice.

Mr. Chater said that he had always looked upon dispensing as an essential part of the examination.

Mr. Forster said that in New South Wales they had stuck to the agreement absolutely.

Mr Wadsworth said that it should be a recommendation from the conference to the Victorian and South Australian Boards to return to the original agreement.

Mr. Young and Mr. Forster pointed out that the Conference had no power to bind the respective Boards. Unless the examiners were present it was futile to pass any resolution. Mr. Fox thought that there was no harm in making a recommendation to the Boards.

Mr. Ward moved, Mr. Wadsworth seconded, "That in the opinion of this meeting the various Boards should be requested to come into line on the original agreement." Carried.

The Mercy Clause.—Mr. Ward explained that Queensland had departed from the 1903 agreement by allowing a candidate to come up more than once for single subjects. Mr Tilly pointed out that at the Universities candidates could take their subjects singly. Mr. Ward moved, Mr. Tilly seconded:—"That in the opinion of this Conference a candidate should be allowed to present himself as often as he liked in the subject in which he failed." Carried.

The Examination Standard.—Mr. Ward explained the Queensland system of marking. The 60 per cent. and 40 per cent. had been found to work very satisfactorily. Mr. Shillinglaw said the contrary was the case in Victoria. Candidates could not get through the examination. It all depended on the examiners. Forty per cent. in one case might be equal to 60 in another. Mr. Young said that in South Australia they did not have 40 marks at all. The standard was 50. Untrained examiners did not mark as strictly as University examiners. No resolution was carried in reference to this subject.

Use of Specified Text Books.—Mr. Chater asked what was the practice as to the use of text-books at examinations. The various delegates explained that books were only permitted at the practical examination. Moved by Mr. Towl, seconded by Mr. Fox:—"That the use of books be permitted only in the practical work." Carried.

Preliminary Examination.—A general discussion took place in reference to the subjects of the Preliminary Examination. Mr. Forster said that originally in New South Wales the subjects were Latin, Arithmetic and English. Algebra was added last year, and it was the intention of the Board to still further strengthen the examination later on.

Mr. Wadsworth: New South Wales had no power to accept the Preliminary Examination of the other States.

Mr. Ward said the Queensland Board did not issue certificates to Preliminary Examination candidates.

Mr. Young: The South Australian standard was the Senior Public Examination of the Adelaide University.

Mr. Wadsworth moved, Mr. Chater seconded—"That in the opinion of this Conference, it is desirable to issue certificates for the Preliminary Examination." Carried.

Mr. Shillinglaw said that English literature had been added to the Victorian examination since the last Conference.

Mr. Ward: Queensland was trying to do away with "cramming." Some boys had an unusual capacity for learning anything by rote.

Mr. Wadsworth: Personally he had an objection to the memorising system. Learning poems was all very well in its way, but his idea of a Preliminary Examination was to train the mind to original thought.

Mr. Young: For a number of years two Latin authors had been included. Their examiners had advised the elimination of authors, and to confine the study of Latin to the principles of Latin grammar. They found there were coaches in Adelaide who adopted the memorising system to Latin authors, so they got their students to use the University text-books.

No resolution was passed on this subject.

Text Books.—The desirability of drawing up a set of text-books was discussed briefly. It was decided to leave the matter as at present, and not to recommend the use of uniform text-books.

Special Form of Indentures.—Mr. Shillinglaw asked what was the practice in regard to apprenticing a lad to a firm.

Mr. Ward: Only apprenticeship to an individual was recognised in Queensland. Partners were not recognised.

Mr. Shillinglaw said that the Victorian Board insisted that if there were partners the names must be disclosed in the indentures.

Mr. Wadsworth: If the two partners were registered chemists, the apprenticeship must be to one of them.

Mr. Young said that South Australia had had a special form drafted by Mr. Justice Homburg when he was in practice. He would be pleased to send a copy to any of the Boards if desired.

Publication of Marks.—Mr. Ward said it would be very unwise to give candidates the number of marks awarded. Mr. Tilly moved, Mr. Towl seconded:—"That the marks awarded at examinations be not disclosed to candidates." Carried.

Reciprocity with New Zealand.—Mr. Wadsworth said that New Zealand already reciprocated with New South Wales. Mr. Tilly said that the same remark applied to Western Australia. Mr. Young asked whether the Victorian Board had any objection to reciprocating with New Zealand? Mr. Chater said that Queensland accepted New Zealand examination certificates only. Mr. Forster said his Board took the whole register on 31st March, 1912, and afterwards examination certificates only. Mr. Shillinglaw said that Victoria had not yet reciprocated. There was an entire absence of information as to the requirements in operation in New Zealand. A letter had been sent, asking them to furnish particulars, and they were also asked to be represented at the Conference. The trouble was that there was no compulsory Preliminary Examination and no curriculum. Practically the same thing applied to Tasmania. The matter was therefore hung up.

Mr. Chater: Would Victoria recognise New Zealand on an examination basis?

Mr. Shillinglaw said that there was no power to do that, or to differentiate between a person who was on the pharmaceutical register on any other qualification.

The Poisons Acts.—This matter was placed on the notice paper for discussion, but as neither South Australia nor Queensland administered the Poisons Acts through the respective Pharmacy Boards, the question was not discussed, Mr. Ward merely pointing out that the police administered the Queensland Act, and Mr. Young that there was no Poisons Act in South Australia. A brief discussion on the placing of 3 per cent. preparation of carbolic acid in the second part of the schedule to the Poisons Act took place. Mr. Forster said that these preparations had been scheduled in New South Wales, and that they were also in the schedule to the British Poisons Act. There had been difficulty with the manufacturers of disinfectants over the matter. Mr. Shillinglaw said that it was proposed to schedule them in Victoria.

British Reciprocity Fees.—Mr. Chater raised the question of the excessive fee of £12 12s. charged by the Pharmaceutical Society of Great Britain to Australian pharmacists desirous of registering themselves in Great Britain under the reciprocity agreement. The various delegates explained that it would be of little use making any further representations. A proposal to increase the registration fee of British pharmacists registering in Australia to £6 6s. was not persevered with, as most of the delegates stated that their Acts bound them to charge only certain specified fees. Mr. Forster said he thought the fee could be charged in an indirect way, by charging £10 10s. for the certificate of competency. No action was taken in the matter.

This concluded the business set down for discussion, and after a vote of thanks to the chairman the Conference adjourned.

Conference with Victorian Branch of the British Medical Association.

A joint Conference of representatives of the Victorian branch of the British Medical Association and delegates attending the Australasian Pharmaceutical Conference was held at the College of Pharmacy, Melbourne, on January 13th. Mr. Bailey occupied the chair, and there were also present:—Doctors Weigall and Noyes (representing the B.M.A.), Dr. F. H. Cole, and Messrs Towl, Shillinglaw (Victoria), Messrs. Young and Gryst (South Australia), and Mr. Forbes (Queensland).

Dr. Weigall said that he had been authorised with Dr. Noyes to attend the Conference on behalf of the Victorian branch of the British Medical Association to discuss the question of the abolition of the word "spoon" in the directions on medicines and the substitution therefor of the words drams and ounces. He pointed out how inaccurate the present system of dosage was, and that, as a profession which sought to be accurate, it was their duty to endeavour to bring about some reform. With this end in view, he had laid the matter before his association, and he now sought the aid of pharmacists in helping to effect the proposed alteration. He therefore moved—"That it be a recommendation from this Conference to the various State Pharmaceutical Societies to request their members to write the dosage of medicines dispensed by them, as written on the original prescription—*i.e.*, in drams and ounces—and to exhibit the following notices in their establishments:—

NOTICE.

In accordance with a resolution of the Pharmaceutical Society for the purpose of obtaining greater accuracy in dosage, all prescriptions dispensed at this establishment on and after
will bear the correct dose stated in drams and ounces.

Suitable measures for the purpose are obtainable within. Price, each.

And that the authorities of all the Hospitals of the Commonwealth be communicated with suggesting the adoption of the definite measure system—doing away with the word "spoon" as a measure.

Dr. Noyes, in seconding the resolution, said that the necessity for reform was too evident to require any words from him to make it apparent. He showed various samples of medicine measures

now in use, and suggested the adoption of Procter's china measure as being the best available. These measures could be obtained at a very low cost, and one might be given away with each bottle of medicine dispensed. He thought that the proposed reform could be effected with very little difficulty or cost.

Mr. Towl said that it would not be possible to give the measures away. Threepence at least would have to be charged for the small measure and sixpence for the large ones.

Dr. Weigall said that from the point of view of chemists dispensing for lodges, the medicine would last much longer if proper measures were used. Some patients finished a cough mixture, for instance, in half the proper time.

Mr. Gryst supported the resolution. He had a large lodge connection, and knew how true the statement was that patients took excessive doses. A uniform measure would certainly prove a great advantage, but the measures manufactured by the principal makers varied considerably, and many were inaccurate. He dispensed 700 prescriptions a month, and invariably told patients to use an egg spoon in preference to a tea-spoon.

Mr. Forbes thought that if the Brisbane Branch of the B.M.A. were acquainted with the resolution, there was every probability of an agreement with pharmacists being arrived at, as medical men and chemists in Brisbane were on the most friendly terms. He doubted, however, if it were wise to bring about the change on the spur of the moment. Eighty per cent. of people would not understand it. There was no time in a busy establishment to explain to every customer what a dram and an ounce meant. He favoured the resolution, but the change would have to be made gradually.

Mr. Towl, while agreeing with the proposal, said that so many medical practitioners wrote their directions in English, that there seemed to be a lack of unanimity on the part of the profession on this point. He always wrote the directions a tablespoonful by measure. The ignorance of the public on the question of correct dosage was appalling. They could not be made to understand the connection between half an ounce and a tablespoonful. It would be necessary to educate the public generally on the point. Many patients came away from the doctor, and forgot altogether what the dose was. He had often to send round to the doctor to ascertain what the dose was. That was in cases where the patient had been told to take a certain dose, and the prescription was marked:—"To be taken as directed." The custom had been going on for years, and it would prove a very hard one to break.

Mr. Young referred to the variation in the capacity of various table spoons on the market. He had known a standard spoon to vary from 5 to 7 fluid drachms. Dessert spoons measured from 3 to 4½ drachms. A tea spoon held from a drachm to a drachm and a half. An egg spoon held just half a drachm. The spoon was a utensil which everyone knew of. Take away the spoon, and you took something out of the lives of the people. Procter's porcelain measure was open to the same objection as the spoon. It could be made to hold more than the proper measured dose. He preferred to see the denomination of spoon embossed, as well as the corresponding sign in drachms and ounces.

Dr. Cole said that the solution of the question rested with medical men themselves, nearly fifty per cent. of whom wrote the directions in English. The text books for medical and pharmaceutical students stated that the patient must take the doctor's instructions. It seemed to him that if the medical men took up the question in earnest pharmacists would soon follow suit. He invariably wrote when prescribing: "by small medicine glass measure," and used the word spoon.

Dr. Weigall said that he had brought the matter before the Medical Association, who considered that nothing could be done without the help of the Pharmaceutical Societies.

Mr. Bailey said they were all seized with the advisability of the patient taking the exact dose the doctor wished. The majority of chemists generally wrote by measure or by measure glass on the label. From the pharmacists' point of view, there was an undoubted difficulty in getting the public to understand. Explanations would be frequent, and would often lead to trouble. Measure glasses were not costly, and it might be possible to get the makers to etch in the equivalent signs in drachms and ounces without much extra cost. There was trouble over the fluid capacity of dispensing bottles. He thought that if an 8oz. mixture were ordered the bottle should contain 8oz., and not 7½oz. or 8½oz.

Mr. Forbes: That is compulsory in Queensland.

Mr. Bailey: It is not so here, and if a bottle is not filled up to the top the patient complains and thinks the medicine has been improperly dispensed.

The resolution was then put, and carried unanimously.

Mr. Bailey referred to the practice of nurses ordering hypodermic tablets, which were poisons, and which required signing for. Difficulty and unpleasantness were constantly arising over this. The nurses had to be treated like any one else, and when they came in for strychnine tablets, for instance, they had to be asked to sign the Poisons Book, and sometimes they did not like doing so. Could the doctors assist the pharmacist in any way?

Dr. Noyes said that he would mention the matter to his association. He thought that if the doctor signed an order it would meet the case.

Mr. Bailey: That was all that was required.

The chairman expressed the thanks of the meeting to Drs. Weigall and Noyes for attending and giving pharmacists an opportunity of conferring with them.

Dr. Noyes said it had been a pleasure to be present, and he hoped that good results would accrue from the Conference.

PAPERS READ AT CONFERENCE.

Co-operation of Pharmacy.

Geo. J. Mackay, Queensland

The spirit of co-operation is in the air. No thinking person can fail to appreciate the advantages of beneficent combination, both in a general sense, and as applied to his own business or profession.

The somewhat loose term, "combine," is popularly applied to an association whose chief aim is to benefit the employer at the expense of the employee or of the public, or of both. Beneficent co-operation can only exist when employer, employee, and community share the benefits of the combination.

Until quite recently co-operation in pharmacy has been practically an unknown quantity. Pharmacists are conservative individuals. I have compared them before to hermit crabs. They move slowly over a restricted area, and carry a heavy shell upon their backs, into which they hurriedly withdraw if approached hastily or incautiously. Fortunately, each year they become less conservative, and one has hopes that within the next hundred years they will take their place as citizens of the world.

The question often asked when the subject of co-operation is discussed is "What good will it do to me?" Then a statement one encounters is, "It may be all right for a big city, but in a small town like Banyong there is no advantage to be gained."

There is no town or city, be its pharmaceutical strength two or two hundred, where co-operation can fail to be of benefit. Pharmaceutical co-operation should exist in every small town, in every city, in every State, throughout the Commonwealth.

There are difficulties in the way, but difficulties are made to be surmounted, and after all many of our mountains are but molehills when we tackle them aright.

The planks in the co-operative pharmaceutical platform should be—

Better conditions for employers,
Better conditions for employees,
Better provision for the public.
Living profits on all articles handled.

The first two planks are very similar, the question of shorter hours being the main issue. Given reasonable working hours (by reasonable I mean similar hours to those prevailing in other callings), the hardships of our business are materially decreased. This matter of shorter hours is one of the mountainous molehills to which I referred just now. The pharmacist who has made a practice of keeping his premises open until 11 o'clock considers it an impossibility to close at 9 o'clock; the 9 o'clock individual at 8, but the 8 o'clock man generally sees that there is little reason why he should not go home at 6 o'clock like any other citizen.

But, and a very big but too, what about the public? One of our Brisbane chemists, when the question of an early closing hour was first mooted, dismissed the matter in one sentence—"Damn the public, it does not consider me, and why should I consider it?" Forcible, but illogical. When a lad enters a pharmaceutical calling he should realise that he owes a certain duty to the public. He is one of the curators of the public health. The doctor, the chemist, the nurse, the engine-driver, the signalman, the lighthousekeeper, all have responsibility quite apart from the duties for which they are paid. That the public neither appreciate nor sufficiently remunerate these persons for their responsibility does not alter the fact; neither does the mere shifting of the responsibility, the onus is there.

The doctor may expect the pharmacists to keep a supply of diphtheretic antitoxin. The chemist may think that the medical man should administer hypodermics in urgent cases after closing hours. I insist that in every town, however small or however large, organised arrangements should be made for the supply of urgent medicines. How the difficulties accompanying such arrangement have been surmounted in the village which I represent I will explain later.

Let us consider the last plank—that of living profits on articles handled.

Without doubt we are all fools. The fact that we are beginning to realise it proves that we are not such great fools as we might be. Conceive any sane person whose expenses amount to, say, 20 per cent. of his turnover, selling articles on which he is making a profit of less than 3½ per cent. I mention a specific article—Enos Fruit Salts—which sells wholesale in broken dozens at 20/-, and retails at 2/6.

All of you who are in business can mention lines which carry from 10 to 15 per cent. only. On every one of these articles you are making a loss. It is quite fallacious to argue that by turning over your capital so many times in the year you are making a profit. Every article you stock must bear its share of the working expenses. If you exempt a class such as proprietary medicines, you are loading all the other branches of your business with the burden of expenses.

There are two classes of medicines to be considered—those imported indiscriminately from abroad, and those whose manufacture is actually carried on, or whose distribution is controlled, in Australia.

Let us deal with the second class first.

I hold that it is axiomatic that the sale of any article showing less than 25 per cent. profit represents a loss.

We may either decide to cease stocking these unprofitable lines, or attempt to make them profitable. It is questionable if the threat of refusal to stock by pharmacists in one town, or even in one State, would carry much weight with manufacturers or distributors, but if every pharmacist in every State refused to carry stocks, I think, in fact I am sure, that we should see something happen.

Properly organised action would bring a large number of storekeepers and other vendors into line.

I wish you to understand that there is no hint of conspiracy in this suggestion. It is simply a practical means of securing our just rights.

There are two ways by which living profits may be secured. Firstly, by decrease in the wholesale prices; secondly, by an increase in the retail, with strict agreements as to selling prices.

The second plan appears to be the better of the two. Doubt has been thrown on the legality

of price protection by the present means, but the following system would, I think, overcome any legal difficulties.

The manufacturers only supply to authorised agents, these agents sell only at schedule price, and on the understanding that the article is not for re-sale, except by another agent.

As far as imported proprietary medicines are concerned, I suggest that an attempt should be made to induce the manufacturers to appoint agents who would manufacture or pack in Australia, so that the wholesale price would be lower than that of the imported article. The retail price then could be controlled satisfactorily. Should they refuse to do so three courses are open, and the same method could be applied to Australian lines:—

1. Refuse to stock.
2. Pack a similar line, and induce every pharmacist in the State to stock and push it.
3. Smash the line altogether.

The third method is a last resource, but it is the most effective of all.

A firm I know had an agency for their State for a line of, let us say, patent camp stools. They bore a fair living profit. This firm had a difference with the Australasian distributors. I have no idea who was right, but they lost the agency, which was taken up by another firm. A price war ensued, which resulted in the article being smashed, i.e., the retail price was reduced so low in cost that no seller would touch camp stools with the proverbial pole. As far as the State mentioned is concerned, a line which, a few months ago had a good sale, has now practically disappeared from the market. As I said before, this is a last resource.

All these things can only be done by co-operation—not co-operative talk, but co-operative work. When I say they can be done I mean they can be done.

The pharmaceutical defence movement in Australia is a fine example of what may be accomplished by co-operation. The pharmacist is no longer in dread of the blood-sucking adventurer who has nothing to lose and much to gain. Co-operation, too, has played its part in the operations of the Public Health Commission. I would suggest that steps be taken to procure greater uniformity in pharmaceutical legislation throughout the Commonwealth. The question is a difficult one, and must only be approached by taking the highest standard, that of Victoria, as a basis for amendments.

Upon the question of co-operative trading it is not my intention to touch, further than to remind you of the opportunities for making money that the chemists of Australia are losing in not co-operating in the manufacture, distribution, and sale of proprietary medicines. If only 50 per cent. of the pharmacists in the Commonwealth would take shares in a company with these objects, I would guarantee to earn for them profits out of all proportion to the amount invested.

To come now to the Queensland venture in co-operation.

The idea of a central pharmacy in our capital city is by no means a new one. It was discussed at length a number of years ago, but on account of the absence of unanimity among pharmacists, and the lack of some definite scheme of operation, no practical result was arrived at. Since then things have moved. Some years ago the pharmacists in Brisbane by a large majority agreed to bring themselves under the compulsory clauses of the Early Closing Section of the Factories and Shops Act, the hour fixed for closing being 9 p.m., and the Sunday hours considerably shortened. Later a wages board was granted to the Chemists' Assistants, the Determination of which provided for overtime being paid after 8 p.m., and on Saturday after 1 p.m.

Early in September of last year a general meeting of the trade was called, at which a scheme was submitted for the opening of a Central Pharmacy. Discussion resulted in various improvements being made on the original suggestion, and a company was formed, in which practically the whole of the chemists in the city of Brisbane and its suburbs took shares. A moderate-sized business, carried on in residential premises, centrally situated, but not in the heart of the city, was purchased. The result has been convincing as to the necessity for providing for the dispensing of prescriptions at all hours. Either the manager, who resides on the premises, or some of the staff, is in attendance at all hours of the day or night. The first three months have just been completed, and an analysis of the prescriptions dispensed after the ordinary closing hours discloses the fact that at least 20 per cent. of these must be considered absolutely urgent, while over 5 per cent. are of very extreme urgency.

As to the question of what constitutes an urgent prescription, I hold that when a patient considers that medicine is urgently required, it is urgently required. Most of us who have had a long experience in pharmacy have come across very many cases where mental effect has been a potent factor in medical treatment.

Drysdales Limited has a much wider scope than that of a mere central dispensary. According to our Memorandum of Association, we are empowered to carry on business as wholesale, retail, and manufacturing chemists, opticians, and surgical and scientific instrument makers and vendors, further to conduct all lines of insurance and underwriting business, and to establish funds for the protection of pharmacists against claims, actions and prosecutions.

While the pharmaceutical defence scheme of Victoria is an admirable one, we are able to deal with this matter in a better and more economical way than in any other State.

Drysdales Limited has a registered capital of £20,000 in £1 shares, 10/- on allotment, and 1/- call per month. Shares are issued in blocks of 2000. On the first of these, which are held by metropolitan chemists, it was only found necessary to make two calls. It is the intention of the directors to make a fresh issue, available for the whole of Queensland, shortly, after which we shall go ahead with our schemes for manufacturing proprietary medicines and for co-

operative buying. We intend to conduct all our operations with members on a cash on delivery basis, and so obviate bookkeeping and collecting difficulties.

So much for Queensland. What about Australia? Are we to continue peddling pills at a paltry profit, or to unite in a co-operative enterprise, which cannot fail to be a success? Gentlemen, it rests with yourselves.

Organic Salts of Bismuth with Alkalis.

By R. C. Cowley.

At the meeting of the Australasian Association for the Advancement of Science, held in Sydney, I made a statement to the effect that bismuth citrate acts as a monobasic acid, giving a well-defined end reaction when titrated with solution of ammonia, using litmus paper as an indicator.

Alkaline Bismutho Citrates.—Ammonia is not the only base forming a compound with bismuth citrate. All other alkalis behave in a similar manner, and it is quite easy to prepare bismutho citrates of sodium, potassium, or lithium, by titrating freshly-precipitated bismuth citrate with the hydroxides, carbonates, or bicarbonates of these alkalis. The solution on evaporation yields compounds which are soluble in water. The sodium compound dissolves more readily in water containing a little glycerin. I have no doubt these compounds will find an application in medicine. Bismutho citrate of lithium is already on the market, and is recommended as a remedy for rheumatic gout.

I am anticipating that the sodium compound has a great future before it. A solution containing the same quantity of bismuth as the Liquor Bismuthi A.P.F., approximately equivalent to 77 grains of bismutho-citrate of sodium per litre, was prepared in the College of Pharmacy, Brisbane, on 25th January, of last year, and it is still in a perfectly sound condition. In preparing it I recommend that a solution of sodium carbonate be added to the bismuth citrate and heated to expel the carbon dioxide. An excess of the alkaline carbonate would, of course, precipitate the bismuth from solution. I am inclined to think that this compound is preferable to the bismutho-citrate of ammonia for use in medicine.

Alkaline Bismutho-tartrates.—Ammonium Bismuth-tartrates has been recommended from time to time as a basis for bismuth and pepsin mixtures, but I cannot say that it appeals to me especially.

A solution containing an equivalent amount of bismuth to the Liquor Bismuthi A.P.F. may be made according to the following formula:—

Bismuth Subnitrate—70 grams.
Nitric Acid (sp.gr., 1.420)—57 c.c.
Sodium Potassium Tartrate—96.6 grams.
Sodium Bicarbonate—37.25 grams.
Solution of Ammonia Water—a sufficient quantity.

The method of procedure is similar to that adopted in the A.P.F. for preparing Liquor Bismuthi. Some slight difficulties in manipulation may be experienced that are not met with in preparing liquor bismuthi, but they are not difficult to overcome. Other alkaline bismutho-tartrates are easily prepared by substituting alkaline hydroxides or carbonates for the solution of ammonia in the above formula. None of these compounds appear to possess any particular advantage over the bismutho-citrates, and are never likely to take their place in medicine.

Alkaline Bismutho-racemates.—Racemic acid, as would be supposed from its relation to tartaric acid, readily forms alkaline bismutho-racemates. They are, of course, only of interest in the laboratory.

Other Organic Bismuth Compounds.—Bismuth Malate, Bismuth Succinate, Bismuth Phthalate, Bismuth Camphorate, are all easily prepared compounds of bismuth, but in no case do they form soluble compounds with alkalis. The behaviour of Bismuth Malate towards alkalis is interesting, as its relationship to tartaric acid would lead one to anticipate the formation of soluble compounds similar to the tartrates.

Solutions of Ethyl Nitrite.

Some Hitherto Unrecorded Facts Concerning their Deterioration.

By R. C. Cowley.

It is not my intention to discuss the matter contained in the voluminous published literature dealing with solutions of Ethyl Nitrite; indeed, it is difficult at this date to say much that is new concerning it.

In the early part of last year a question was put to me by a Victorian chemist regarding the keeping qualities of Spirit of Nitrous Ether of the B.P., in connection with the regulations under the Food and Drugs Acts, then being framed, in the various States of the Commonwealth. As I was then conducting some experiments on this compound, I did not feel disposed to offer an opinion pending the results.

Ethyl Nitrite itself is so very volatile that in the climate of South Queensland it can only be stored in ampoules: glass stoppered bottles are quite useless.

Solutions of Ethyl Nitrite lose strength in at least three different ways:—

1st.—By evaporation;

2nd.—by spontaneous decomposition, probably as represented by the following equation—

$$2C_2H_5NO_2 = CH_3CHO + C_2H_5OH + 2NO$$

3rd.—By hydrolysis and subsequent oxidation, possibly somewhat as follows—

(a) $C_2H_5NO_2 + 2H_2O = 2C_2H_5OH + 2HNO_2$

(b) $C_2H_5OH + 2HNO_2 = C_2H_4O + 2NO + 2H_2O$.

(c) $C_2H_4O + 2HNO_2 = CH_3COOH + 2NO + H_2O$.

It was, no doubt, through recognising the effects of hydrolysis in Spirit of Nitrous Ether that the compilers of the present British Pharmacopœia introduced a solution in Absolute Alcohol and Glycerin, under the name of Liquor Ethyl Nitratis. This preparation has not "caught on," and is rarely used.

The rapidity of Hydrolysis of Ethyl Nitrite is such that it is practically useless to prescribe it in an aqueous mixture; it should be diluted immediately before administering it.

That the "Liquor" keeps better than the "Spirit" is shown by the following rough gaso-

metric analysis, performed as described in the British Pharmacopœia. The fact that corrections for barometric pressure and vapour tension are not given does not detract from the value of the figures as a comparison since the analyses were performed side by side.

Spirit of Nitrous Ether.

Date.	Temperature.	Vol. of NO from 5 c.c.
1911, June 6th	22.6°C	38 c.c.
Dec. 14th	34.0°C	28.5 c.c.
1912, Apr. 30th	22.0°C	23 c.c.
May 31st	20.5°C	20.4 c.c.

Solutions of Ethyl Nitrite.

1911, June 6th	22.6°C	38.4 c.c.
Dec. 14th	34.0°C	35.2 c.c.
1912, Apr. 30th	22.0°C	34.0 c.c.
May, 31st	20.5°C	31.5 c.c.

These figures are picked from a series of monthly determinations, but all are not stated, as they might somewhat obscure the issue.

Both samples were stored in accurately-fitting glass stoppered bottles, in a cupboard, and were only opened for the purpose of withdrawing the necessary amount of solution for analysis. The colour of the bottles was, under these circumstances, of no importance.

Glancing through these figures one might be inclined to say that both samples kept very well considering their constitution, but these were hardly fair tests, and by no means typical of conditions obtaining under actual working in a pharmacy. The effect of the frequent removal of the stopper has to be taken into consideration. I found during these experiments that the sample must be pipetted directly from the bottle, otherwise the results were very discordant.

Mr. T. McCall, Assistant Government Analyst, Queensland, mentioned to me that this observation concurred with his own.

To gauge the effect of exposure I allowed samples to stand exposed for various lengths of time.

In the case of the above-mentioned Spirit of Nitrous Ether, which on 31st May last yielded 20.4 c.c. of Nitric Oxide from 5 c.c. at 20.5°C, the same sample on that date after standing exposed in an open vessel for 15 minutes yielded 16.2 c.c. of Nitric Oxide, and after exposure for 1 hour 13 c.c. of this gas. Another commercial sample, which yielded from 5 c.c. 23.3 c.c. of NO at 22.8°C, after standing for one hour exposed yielded only 9.3 c.c. of gas.

Stronger solutions of Ethyl Nitrite deteriorate proportionately more rapidly.

Taking all these observations into consideration it appears clear that the deterioration of solutions of Ethyl Nitrite is chiefly due to evaporation, and they also lead me to believe that the smaller loss of Ethyl Nitrite observed in the case of Liquor Ethyl Nitrites was due to the greater viscosity of the solvent.

To put my deductions to the test, I prepared three solutions containing 3 per cent. by weight of Ethyl Nitrite.

No. 1, 5 volumes Glycerine to 95 volumes of Absolute Alcohol, B.P.

No. 2, 1 volume of Glycerine to 2 volumes of Absolute Alcohol.

No. 3, equal volumes of Glycerine and Absolute Alcohol.

The volume of Nitric Oxide from 5 c.c. of each was measured at 21°C, without undue exposure, and also after standing exposed for one hour. The factors obtained were as follows:—

	Without undue exposure.	Exposed 1 hour.
No. 1	38.2 c.c.	12 c.c.
No. 2	42.0 c.c.	21 c.c.
No. 3	45.0 c.c.	29.2 c.c

The effect of increasing the viscosity is therefore most marked.

In the case of Spirit of Nitrous Ether a similar improvement in the keeping qualities was observed by the addition of Glycerin. Equal volumes of 90 per cent. alcohol and glycerin were put into the receiver, and after distillation the product was assayed without undue exposure, and also, after exposure in an open vessel for one hour, at a temperature of 19.3°C, with the following results:—

	Weight.	Volume of NO
Without undue exposure	3.048 grams.	29.9 c.c.
	100 grams.	981 c.c.
After 1 hour exposure	4.16 grams.	13.1 c.c.
	100 grams	315 c.c.

Another sample in which the distillate was received into glycerin alone the loss was found to be much less after exposure for one hour in an open vessel—

	Weight.	Volume of NO
Without undue exposure	2.63 grams.	18.2 c.c.
	100 grams.	692 c.c.
After 1 hour exposure	4.16 grams.	19.5 c.c.
	100 grams.	424.2 c.c.

The increased viscosity of this sample might be regarded as objectionable especially in the climate of the British Isles.

These preparations were made on 19th June last. On 2nd December, when the temperature was 30.5°C, another assay was made, and it was found that the solutions kept admirably.

In conclusion, I would strongly recommend the compilers of the forthcoming edition of the British Pharmacopœia to adopt a mixture of 90 per cent. alcohol and glycerin in equal volumes as a solvent for all preparations of Ethyl Nitrite.

Modern Methods of Analytical Control.

By J. H. E. Evans.

During recent years perhaps no department of the business of a manufacturer and wholesale distributor of the requirements of the drug trade has been more prominently before his mind than the necessity of adequate analytical control. The day when a good nose, a good eye for colour and shape, a sensitive touch, and a general commercial knowledge of the quality of material handled were considered sufficient is past; the medical man and the pharmacist demand, and rightly so, a guarantee of purity and quality, which can only be conscientiously given after an adequate scientific examination of the material in question. The researches into the constituents of our crude materia medica, which have followed the general advancement of science in all direc-

tions, is the first cause which has led up to this demand. In the case of many products, we know now what we are dealing with—why a certain drug gives a certain result, and to what active principle or principles in that drug the effect is mainly due. We know how such active principles can be best extracted and preserved in the preparations thereof. We know that certain impurities may exist in certain chemicals, and that by improved methods of manufacture they can be eliminated. We know in the case of many natural products their chemical constituents and their physical reactions, and it is right and proper that those who rely on them when sick should obtain the full benefit of the researches and investigations which have resulted in the knowledge we possess.

Thus we come to the official requirements of our Pharmacopœias, and also to the standards set up by the Public Health Regulations in various countries of the world. These standards put a legal obligation on the manufacturer and distributer, which he is bound to follow, even if he be not anxious to avail himself of such knowledge and information as may come before him for the conscientious discharge of his duty in supplying the best that it is in his power to do.

Further, commercial considerations must weigh, and the manufacturer who desires to hold and increase his business must, under modern conditions, be able to guarantee his goods and stand by his guarantee.

Thus analytical control is an essential feature in our business, and the more complete it is the more conscientiously can the business be carried on; it may be added that the interest in the business is thereby increased. That there are many difficulties in the way must be confessed, and also there is to be emphasised the danger of being carried away by pure analytical data without due consideration of the wider aspects of the question. Cost of production has to be considered. Reliability of chemical and physical tests and standards must be proved before being adopted. Clinical testimony that the drug depends for its activity on the suggested standard of active principle must be obtained before we adopt that standard. Economic requirements of various countries must be considered.

But while the possible pit-falls are numerous, the broad basis of control is obvious, and this paper is an attempt to deal briefly with those methods which are generally adopted. In Great Britain and the British Colonies we follow first the standards of the British Pharmacopœia, supplemented by the Indian and Colonial Addendum, which gives certain latitudes to those parts of the Empire which are governed by local conditions. The British Pharmacopœia is not, as is expressly pointed out, a legal standard, but is intended (as is stated in the prefaces) "to afford to members of the medical profession, and those engaged in the preparation of medicines throughout the British Empire, one uniform standard and guide, whereby the nature and composition of substances to be used in medicine may be ascertained and determined." In many parts of the Empire, as in Australia, it has been supplemented by additional regulations, imposed by the local Government, which presumably have been found necessary to cope with local conditions.

In Great Britain itself, however, the Pharmacopœia is under the Foods and Drugs Act, as a matter of fact, accepted as the standard in a Court of Law; although it is now some 14 years old, it is generally sufficient if the defendant can show the article in question was B.P. to secure acquittal. There have been great strides in our knowledge since the British Pharmacopœia was published, and many of its tests are now obsolete, so that conflicting evidence is often given and the need of more recent standards with an official if not legal authority is badly wanted.

In America, where the United States Pharmacopœia and National Formulary are legal standards, much confusion—more especially in regard to crude drugs—has arisen, and the amount of litigation and annoyance to importers through the carrying interpretation of a particular description, or the accuracy or otherwise of a particular official standard, has proved the enormous difficulty of making what is essentially a guide to medical and pharmaceutical practice (the chief object of which is purely a uniformity in medicine) an absolute legal standard.

Expert evidence, medical and scientific, is admittedly difficult to reconcile. A doctor or a chemist has his own hobby, and will often ride it to death. His opinion and his evidence, based on his work and his own interpretation of other people's, is often narrow, and it appears to me that the most reasonable method of ensuring the purity of medicine is the Pharmacopœia, an official standard only between doctor, chemist, and the public, and such regulations as may, from time to time, appear necessary in different localities for the enforcing of that standard, but always with due regard to local conditions, advancement of knowledge, and ordinary common sense.

I would venture to suggest that the adoption of other text-books (valuable works of reference though they may be) as official standards, is not a step in the right direction. It is superfluous where our Pharmacopœia is up to date, as that work should contain all standards necessary. It also leads to confusion, and it is giving a prominence to the work and opinions of one man or body of men, put forward with no official authority at the expense of others who may be just as capable of the work.

Having dealt with the final object of analytical control, that is, the control of the supply by the pharmacist of "pure" drugs and preparations to the public, the question arises can the pharmacist by his own work ensure that he is supplying what is required of him—the best. To a large extent he can. His training and education have all been based on the assumption that he will do so, and have to a great extent fitted him for the work. So far as care in dispensing a prescription—of the proper storing and handling of his more potent medicines, in the selection by smell, colour, shape, or general appearance of the material is concerned, the pharmacist un[illegible] will use every possible care and con-

trol. Many make their own preparations and apply such tests to what they have to buy as will ensure their getting, so far as it is possible for them to judge, the best obtainable.

But, as was emphasised at the beginning of this paper, scientific knowledge has advanced so far that, unless a man can give practically his whole time to study and analytical work, it is an absolute impossibility for him to guard against all the pit-falls that arise in the selection of crude material, and the accurate manufacture of galenicals. Not only has the advancement of science shown what we *ought* to have and how to find it, but what we ought *not* to have, and the publication of these required natural principles and the explanation of methods of detecting unexpected adulterants has given the sophisticater his opportunity of cunningly hiding his adulteration, so that his product will pass the latest published tests. Empirical standards by independent and sometimes over-zealous workers are being frequently set up, suggested without the adequate amount of work necessary to establish them, so that the amount of analytical detail and forethought required before a final conclusion is arrived at is enormous, and required a specially trained mind, untrammelled with the consideration of daily commerce to unravel.

Ultimately, therefore, the actual control of the great bulk of the medicine consumed by the public is in the hands of the wholesale dealer and manufacturer. In order to secure this control a staff of scientists is employed where the specialised training and knowledge of various experts, each in their own branch of science, is co-ordinated and associated with the knowledge of commercial possibilities and requirements in the possession of the house they work for.

The many thousands of samples of crude drugs and preparations which are examined annually in my laboratories yield abundance of evidence that control is necessary if the purity of our products is to be maintained and progress achieved on the lines of modern science. The recent advancement of bio-chemistry and bacteriology may be instanced as an all-important feature in this connection.

The material investigated divides itself into four classes:—

(a) Crude vegetable material (roots, barks, leaves, etc., and their preparations).
(b) Essential oils.
(c) Fixed oils and waxes.
(d) Chemicals and synthetic products.

Class "A" (Crude Vegetable Material).—May be subdivided into three groups—

(1) Where the active principles are unknown, and the specific therapeutic action such that they do not lend themselves to definite physiological tests, for example, Gential and the simple bitters. Here an examination of the physical characteristics, colour, shape, odour, etc., is generally sufficient, supplemented where necessary with microscopical examination. Estimation of the extractive matter is often a useful check, and this estimation is commonly employed in the examination of the preparations of this group of drugs before they are passed into stock.

(2) Where the exact active principles are unknown, but where the potency of the drug demands a physiological estimation, as in digitalis and other heart tonics, ergot, etc. In this connection I would like to emphasise a distinction between physiological *standardisation* and physiological *estimation*. The Pharmacopœia is the only authority which can be followed for the preparations of official articles: the legitimate sphere of the manufacturer is limited to the production of efficient galenicals in accordance with the quantities and methods therein stated. All alterations of strength and dosage are questions for the pharmacologist and the physician. It is clearly necessary, however, to conform the activity of preparations of these potent and imperfectly-understood drugs by the best means available. The reliability of action of those of our products which belong to this class is ensured by expert selection of raw material, proper methods of preparations, and scientific physiological testing by specialists working independently of the manufacturing departments.

The strength of preparations of the digitalis group is checked by this action on the isolated mammalian heart: those of ergot by their action on the isolated uterus of the rabbit. While these and similar processes of estimation require the skill of a trained physiologist and elaborate apparatus to carry out I believe them to be of more value than the standardisation to a definite lethal dose.

(3) Where the activity of the drug is recognised to depend on some definite active principle or principles which can be chemically assayed, much attention is now given to this estimation, and wherever possible preparations are so standardised, but it is first necessary to establish the fact that the drug depends for its activity on the particular standard to be adopted, and that the method of estimation will be accurate in the hands of various workers. We have learned from this work that it is not always possible to judge the value of a drug by its appearance, as often clean bold roots or leaves, true to official description, are found to be almost devoid of active principle, whereas a sample which the eye would reject is rich in this respect.

Class "B" (Essential Oils).—These adapt themselves particularly to adulteration, and more especially require a long experience in their valuation. So many chemists have devoted themselves to the analysis of this class of material, that it is often difficult to reconcile the opinions of experts, and this is made the harder by the introduction and deliberate addition of clever synthetic adulterants at the source of supply. It has been said that an experienced eye and nose is as good a test for the purity of an essential oil as any analytical process of estimation. Though this may be an exaggeration, it is important to bear in mind that any data adduced from analysis should be checked by the appearance and odour of the oil under examination.

The common tests employed are specific gravity, solubility, optical reaction, refractive index, estimation of phenol, alcohol, or ester, as the case may be, and, where the above are inconsistent or not concordant with previously observed results, fractional distillation and examination of the separate fractions obtained.

Class "C" (Fixed Oils).—Broadly speaking, the above remarks apply to this class also, but the tests employed include saponification and iodine values, and other data for individual substances.

Class "D" (Chemicals and Synthetic Substances).—The identity of the substance having been proved, and its appearance and solubility checked, an examination is required for impurities, which may have crept in during the manufacture. Very great attention has been paid to this subject in recent years, with a marked improvement in supplies. Lead, iron, arsenic, and other such objectionable impurities have been largely eliminated, and the purity of the pharmaceutical chemicals from reputable manufacturers leaves little to be desired.

There is just a tendency to push this "purity" to too great extremes, and an insistence to rid a chemical of the last traces of impurity imposes a task on the manufacturer which increases the cost of material to perhaps an unnecessary extent. This is particularly the case in those chemicals which have industrial as well as pharmaceutical uses: this has been well shown in the case of borax, where a higher arsenic content is admitted when sold for commercial purposes, than in medicine.

I had intended to conclude this paper with some examples from our analytical records to illustrate the various points I have tried to bring out, but am afraid to do so adequately would weary you. I will, therefore, leave it as (I am afraid) a somewhat academic commentary on the general subject of analytical control, but perhaps there are some points which will form an interesting basis for discussion.

Those who are interested in the more practical side of the question will find full information in the "Analytical Notes," which are published annually by my Company, and in "Evans' Journal," a quarterly publication, directed more especially to therapy and bacteriology, and their relation to pharmacy.

Methylated Spirits for Pharmacists.

By W. G. Piper.

When the Commonwealth Spirits Act was passed in 1906 attention was concentrated on certain features which need not be mentioned here, but which would have materially interfered with pharmacists. Considerable effort was needed to get the Act modified, and owing to this concentration of attention one provision which could have been utilised for the benefit of pharmacists was overlooked.

Section 14 defined methylated spirits and their use and the four classes of methylated spirits which are allowed. The third of these is "Spirits for special manufactures," which, as sub-section 4 says, "shall be methylated as prescribed, and shall only be used under the control of the Customs and in accordance with the regulations."

Provisional regulations were issued on December 28, 1906, and on March 28, 1907, these, with certain minor modifications, became law. Part 4 deals with "methylated spirits for special manufactures." This requires that the spirits shall be of a strength of not less than 65 degrees over proof, or, in special cases, such lower strength as is approved by the Comptroller, and the methylation thereof shall be effected by the addition of such methylating substance and in such proportion as the Comptroller directs. Any manufacturer desiring to use methylated spirits in any manufacture in which he proves to the satisfaction of the Collector that industrial spirits or mineralised spirits would be unsuitable or detrimental, may make application in writing of the Collector, stating the means by which it is proposed and desired to methylate such spirits. The manufacturer shall give full particulars of the situation of the premises in which, and purposes for which, the spirits are to be used, together with a description of the process of manufacture.

Upon approval of the application and upon the spirits being methylated in such a manner as the Comptroller directs, an entry shall be made, and shall specify the purpose for which the methylated spirits are to be used, and upon the passing of the entry, the methylated spirits may be delivered to the manufacturer.

Security, in an amount to be fixed by the Collector, must be given that the methylated spirits cannot, unless by permission, be used for any purpose other than the manufacture specified in the entry. Not more than 100 gallons may be kept at one time in the premises of a manufacturer, and a full record must be kept of the way in which the quantity is used. If the Collector considers it necessary, an officer will be required to supervise wholly or partially the manufacture of any product in which methylated spirits are used, at a cost of 2s. per hour, or part thereof.

Apparently, with one exception, no one has taken advantage of these provisions.

At the meeting of the Conference in Sydney, Mr. Loney referred to the evil smelling methylated spirits which was now supplied, and was very objectionable in the manufacture of certain preparations.

When two or three months ago news came from New Zealand that the wood polishers had obtained from the Minister of Customs the right to use spirits methylated with wood naphtha instead of with the usual pyridine, suggestion was made in the columns of "The Chemist and Druggist of Australasia" that similar privilege might be obtained by pharmacists. On inquiry, it was found that two or three years ago the manufacturers of hairdressers' preparations had obtained the privilege of using a spirit methylated with 10 per cent. of wood naphtha instead of the usual spirit containing 2 per cent. of wood naphtha and 1½ per cent. of pyridine. But the preparations in which this spirit was used had to be labelled "Hair Liniments."

The necessary procedure is given in the quotation from the regulations, and any application made to the Comptroller of Customs, we learned, would be received sympathetically.

It appears from the regulations that, while it might be possible for the Australasian Pharmaceutical Conference, by deputation or otherwise, to arrange with the Comptroller that certain

methods of methylation should be approved, it will be necessary for each pharmacist, who desires to use such specially methylated spirits, to make an individual application and give an individual guarantee, but no real difficulty need stand in the way.

The Spirits Act says that no methylated spirits shall be used in the manufacture of or preparation of any articles of food or drink or of any scents, essences, tinctures, or medicines. Medicine is defined by section 3 as medicine for external or internal application other than liniments and veterinary medicines. Evaporating lotions are not mentioned, and it can hardly be doubted that, strictly speaking, it is illegal to dispense them.

Tinct. opii meth. and tinct. benz. co. meth. have been specially declared by the authorities not to be veterinary preparations, and cannot legally be manufactured or sold.

The restriction of the use of methylated spirit is undoubtedly due to the opinion that methyl alcohol is highly dangerous to the human economy, even when used externally. In his report for the year 1909, Merck quotes from Kobert on Intoxications (a two volume book, published in 1906). He remarks that Kobert "also regards the external application of methyl alcohol as a hair wash and for friction as dangerous practice." It will be noted that this is apparently an expression of opinion and that no facts are brought forward to support it. In his report for 1911, Merck remarked: "Some years ago I pointed out the danger of using methyl alcohol externally or internally as a substitute for ethyl alcohol. The reality of this danger is now fully recognised by experts"; and he quotes Kobert again, as well as two other communications to German pharmaceutical publications.

The superior antiseptic power of methylated spirits has recently been mentioned more than once. In English medical journals we have seen statements that methyl alcohol is distinctly a more powerful bactericide than ethyl alcohol. Experiments made in Melbourne by Doctor Bull, and communicated to us by Cuming, Smith and Co., show that methyl alcohol is as powerful a bactericide for the bacillus typhosus as ethyl alcohol, but that does not settle the question of the superior antiseptic effects of methylated liniments, to which testimony was given in a recent letter by Mr. A. R. Bailey, President of the Conference.

As the ordinary methylated spirits must have been used in these cases containing 2 per cent. of wood naphtha and ½ per cent. of pyridine, questions are raised as to which of the ingredients caused the antiseptic effect. Wood naphtha is a body of mixed composition; the proportion of pure methyl alcohol in it would not exceed 30 per cent. The half per cent. pyridine might possibly be the bactericide, but much experimental work would be necessary to provide proof.

It is certain that if the Conference decided to make direct application to the Comptroller of Customs it would not be difficult to arrange that a specially methylated spirit be used in the manufacture of proprietary liniments and external applications, but it will be necessary to formulate exactly what is desired and to submit to the few, by no means onerous, conditions.

Regulations *revised and issued* on April 8, 1908.

Liniments and veterinary medicines containing methylated spirits.

Where any liniment or veterinary medicine made in Australia contains methylated spirits, a label shall be affixed to the bottle or packet in which it is contained, having thereon, in clear and prominent characters, a statement as follows:—

"This preparation contains per cent., by volume, of methylated spirits."

[The other papers read will be published next month.—ED. *A.J.P.*]

TRADE MARK APPLICATIONS.

THE COMMONWEALTH REGISTRAR OF TRADE MARKS has accepted the following applications for registration during the month. Objections to the registration of any of these must be lodged within three months of the date of their publication in the official journal:—

CASTORIA.—The word "Castoria." Chemical substances prepared for use in medicine and pharmacy. The Centaur Company, 77 Murray-street, New York.

SELMO.—The invented word "Selmo." Chemical substances prepared for use in medicine and pharmacy, except cough elixir; and perfumery, including toilet articles, preparations for the teeth and hair, and perfumed soap. The Chemists' Co-operative Co. of New South Wales, 147 George-street W., Sydney.

KOLA. Distinctive device, Kola. Stevenson and Howell Ltd., 95A Southwark-street, London, S.E.

KEYSTONE. Distinctive brand. Chemical substances prepared for use in medicine and pharmacy. Stephen Smith and Co. Ltd., 51 Malmesbury-road, Bow, London.

K. Chemical substances prepared for use in medicine and pharmacy. Kay Bros. Ltd., Stockport, England.

TARPINIX. The word "Tarpinix." Medicine for human use. James F. Smith, Paddington, N.S.W., chemist.

LYSOFORM. The word "Lysoform." Chemical substances prepared for use in medicine and pharmacy, also perfumery, etc. Lysoform Gesellschaft mit Beschrankter Haftung, 56 Berlin, Germany.

GRACEMATH. The word "Gracemath." Chemical substances prepared for use in medicine and pharmacy. Grace Matheson, Black Ridge, Clermont, Queensland.

CORPULOSE. The word "Corpulose." A syrup not medicated. A. Boake Roberts and Co. Ltd., 100 Carpenter's-road, Stratford, England.

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THE AUSTRALASIAN

Journal of Pharmacy,

Published on the 20th of each Month.

The Organ of Pharmacy in the Australasian Colonies. Devoted to the advancement of Pharmaceutical knowledge, and to the advocacy of a more thorough education and practical training for all persons engaged in preparing and dispensing medicines, drugs, and chemicals. It is issued gratis to the members of the Pharmaceutical Society of Australasia in

Victoria,	South Australia,
New South Wales,	Tasmania,
New Zealand	Western Australia,
Queensland	Fiji,

And to non-members at 10s. per annum, payable in advance. Subscriptions may commence at any time.

Advertisements, remittances and all business communications to be addressed to The College of Pharmacy, Swanston St., Melbourne.

Communications for the Editorial Department of this Journal must be addressed to The Editor, Swanston St., Melbourne.

No notice can be taken of anonymous communications. Whatever is intended for insertion must be authenticated by the name and address of the writer, not necessarily for publication, but as a guarantee of good faith.

Contributions of any items of interest are invited.

Advertisements to be inserted in the next issue should be received by the Publisher not later than the 14th of each month.

Index to Advertisements, page 6.

London—407 Bank Chambers, Chancery Lane, London, W.C.

Sydney—17 Waltham Buildings, 24 Bond Street.
Melbourne—360 Swanston Street.
Telephone 643.

Readers are respectfully requested to mention this Journal when acting on information obtained from it.

VICTORIA.

Pharmacy Board of Victoria.

A meeting of the Board was held the 23rd December. Present: Messrs. Lacey (chair), Bailey, Ogg, Strutt, Towl. The meeting was called to receive and consider the resignation of Mr. H. Shillinglaw, Registrar to the Board. After the meeting, which was held in committee, the President made the announcement that Mr. Shillinglaw's resignation had been accepted with great regret, and that six months' leave of absence had been granted to him on full pay.

The monthly meeting of the Board was held on the 8th January, 1913. Present: Messrs. Lacey (chair), Bailey, Farmer, Francis, Strutt, Towl. Correspondence was read and minuted.

Applications for Registration.—Albert Gordon Finlayson, Stawell; Louisa Wilkinson, Cramer-street, Preston; Elbertine R. Wasley, 228 Collins-street, Melbourne; Gladys Rose Andrews, Hepburn-street, Auburn.

Apprentice's Indenture Registered.—Silvia Phyllis. Mitchell, to G. E. Gulliver, Melbourne.

The annual report of the Board to the Government was reported as in progress.

Appointment of Acting Registrar.—Mr. C. L. Butchers was appointed Acting Registrar from 1st February, 1913, on the motion of Mr. Towl, seconded by Mr. Bailey.

The Treasurer submitted the financial statement for the year 1912, which was referred to the auditors for their report.

Reports were received from the police, which were read and minuted, and the Board adjourned.

Pharmaceutical Society of Australasia.

The monthly meeting of the Council of the Pharmaceutical Society of Australasia was held on Wednesday, the 15th January.

Present: Messrs. Bailey (chair), Cossar, Champion, Francis, Imes, Kernot, Owen, Pickford, Rankin, Strutt and Taylor.

Correspondence.—Dr. G. Weigall wrote that Dr. Noyes and himself would be present at the meeting of the conference, 13th.—Mr. T. B. Jones, Fitzroy, asking that his name might be placed on the Life Members' list, he having been a continuous member for the last 25 years. The request was complied with.

The Australasian Pharmaceutical Conference.—A report of the general business at the meeting of the conference was laid on the table.

The Annual Meeting of the Society.—Wednesday, the 19th March, was fixed as the day on which the annual meeting will be held.

The Retiring Members of the Council.—The following members of the Council retire by effluxion of time, viz.:—W. E. Kernot, John Champion, Duncan Rankin and Arthur R. Bailey.

The Council then went into committee, and upon resuming adjourned.

Pharmaceutical Defence Limited.

A meeting of the directors was held at the College of Pharmacy, Melbourne, on January 15th.

Present:—Mr. Buckhurst (in the chair), and Messrs. Francis, Gulliver, Rankin, and Towl. Apologies from Messrs. Church, Cornell, and Peters.

Correspondence.—To Defence Department, asking that a tariff scale be adopted for dispensing to members of the Instructional Staff. A reply was received that the Minister could not see his way to make any alteration in the fixed allowance. It was resolved that pharmacists be advised not to undertake the work on the terms stated. Income Tax Office, requesting that a Public Officer be appointed for taxation purposes to represent the company. Resolved that the secretary be appointed.

I.O.A., forwarding credit notes for insurances effected on account of Messrs. Cochran, De Lacy, Elphick, Taylor, Martin, Champion, Uren, Church, Rankin and Newman.

Ballarat Chemists' Association, advising that Mr. W. H. Pleay had been nominated for the Pharmacy Board. Bendigo Chemists' Association, intimating that Mr. A. E. Sayer had been selected to contest one of the vacancies on the Pharmacy Board. Resolved that these nominations be indorsed, and that members be asked to support them in the event of a contest.

Veterinary Board, intimating that the Board would be pleased to confer with representative pharmacists in reference to the position of chemists under the Veterinary Act. Resolved that Messrs. Buckhurst, Gulliver, Baird and Butchers attend the meeting of the Board on January 16.

A large amount of routine correspondence was read and minuted.

Dispensing by Doctors.—A country pharmacist wrote, asking if anything could be done to reduce to a minimum the amount of dispensing done by doctors in the country, and stating that in his town, though there were two chemists in business, the doctor did his own dispensing. He asked whether in the interests of the community it was advisable for one man to both prescribe and dispense, and perhaps give the death certificate as well. It was resolved that this was a matter which might later on engage the attention of the directors, and that it might be possible to obtain the assistance of the Medical Association in the direction indicated. In the case brought under notice, the secretary was instructed to make further inquiries, and see whether an understanding between the chemists and the doctor could not be brought about.

Prosecutions under Pure Food Act.—It was reported that special arrangements had been made to protect members in prosecutions under the Pure Food Act in regard to broken packages of drugs used in preparations dispensed by members. The arrangement with the insurance company would not protect a pharmacist in connection with a prosecution resulting from faults in the original packages supplied by wholesale houses. The chairman pointed out the advantage of this concession to members, and stated that, so far as original packages were concerned, the Pure Food Act enabled a pharmacist to throw the onus as to quality and purity on the manufacturer or wholesaler under the warranty clause in the Act.

Election of New Members.—The following new members were balloted for and elected:—William Denby, Corryong; George M. J. Cole, Sea Lake; F. H. Cooper, Maffra; Leslie Lay, Traralgon; R. S. Poynter, Coleraine; Max Pincus, Castlemaine; Charles E. Keays, Newmarket; T. H. Buzza, Footscray; Osmond Smith, North Carlton; W. J. Bowen, Beechworth; P. R. Bayley, Werribee.

Pharmacy Board Election.—The chairman was authorised to call a general meeting of members in the event of there being a contest for the seats vacant on the Pharmacy Board, and also to send out a circular asking for the undivided support for the five candidates nominated—Messrs. Buckhurst, Pleay, Gulliver, Jewkes and Sayer.

The Secretary said that in view of a possible contest he could not take any part in the election. The Chairman said that the selected candidates would act on their own initiative, and without reference to the Secretary.

Proposed Wages Board.—Mr. Francis suggested holding a conference with the assistants in connection with this matter. It was resolved first to obtain further statistical information from pharmacists, and Messrs. Buckhurst, Francis, and the Secretary were appointed a committee to draft a circular on the subject.

Treasurer's Statement.—Balance in general account, £97 13s. 8d.; Reserve Fund, £200.

Conference with Veterinary Board.—A friendly conference between representatives of Pharmaceutical Defence Ltd. and the Veterinary Board took place at the Government Offices, Melbourne, on January 16, in order to discuss certain points which had arisen in connection with the rights and privileges of registered pharmaceutical chemists under the Veterinary Surgeons Act 1890. Messrs. Buckhurst, Baird, Gulliver and Butchers attended on behalf of the pharmacists. Mr. Buckhurst explained the facts which led up to the matter, and said that it was desirable, in the interests of both bodies, to discuss the points at issue in a friendly way without recourse to law. After hearing the views of the deputation the vice-president of the Board (Mr. Robertson) said that he was very pleased the deputation had waited upon them. The Board was fully prepared to admit that pharmacists had an undoubted right to prescribe and supply veterinary medicines in their open shops, provided they did not go outside and undertake the treatment of animals. This was entirely outside their rights, and could not be countenanced by the Board. Mr. Buckhurst said that no one wished to undertake this class of work, but pharmacists desired that those rights and privileges which were conserved to them by Parliament should not be interfered with. On the second point raised, the Board stated they would not in future interfere with a pharmacist who used such signs as "Veterinary Medicines Dispensed" or "Horse and Cattle Medicines Supplied Here," but on the third question—the use of the words "Veterinary Chemist"—the Board was strongly opposed to pharmacists using this title, as it conveyed to the public that the person

using it was qualified to act as a veterinary surgeon. The Board was fortified in this attitude by their legal advisers. Mr. Buckhurst said that this was a matter which he thought pharmacists might rightly concede in view of the friendly attitude of the Board on the other two points at issue. The vice-president thanked the deputation for their courtesy in meeting the Board. He thought the Conference had cleared up several matters, and that should any future dispute arise pharmacists would be given an opportunity of discussing it before legal action was taken.

NEW SOUTH WALES.

Pharmacy Board of New South Wales.

The ordinary monthly meeting was not held on the 14th inst., owing to many of the members being absent at the Melbourne Pharmaceutical Conference. It will take place on the 21st inst.

Pharmaceutical Society of New South Wales.

There was no meeting of the Council on the 14th inst., owing to the absence of members in Melbourne. Consequently the meeting was postponed for a week.

Pure Foods and Drugs.—Some months ago, Dr. Ashburton Thompson, president of the Board of Health, was appointed a Royal Commissioner to inquire into and report upon the standardisation of foods and drugs in the Australian States. Dr. Ashburton Thompson made an exhaustive investigation, and examined a large number of witnesses in each of the States of the Commonwealth, and his report and recommendations are now complete. Copies have been forwarded to the Premiers of the various States. It has now been made available.

A wide range of subjects is covered by the report, which contains abstracts of the evidence given in each department, and as it has been very carefully compiled, it contains a great amount of information valuable to traders. Among other things, he says:—"It may be assumed, I think, that the necessity for a further Conference of Commonwealth and State officials composed as was the Conference of 1910 would be the only possible body by which the contents of a code which shall bevond any doubt be fit for adoption by all the States within the Commonwealth and by the Department of Trades and Customs can be settled. But it is essential that this further conference, should its appointment be approved, should be placed in a better position than was the Conference of 1910. The business to be discussed at it should be very carefully prepared beforehand, and in preparing it the desirability of proceeding with great deliberation should be borne in mind.

"Perusal of the report of the Conference of 1910, with reference to the opinions just expressed, would show at once, I think, that the business of preparing this matter for discussion by a further conference would be most important, and not free from difficulty. How preparation should be effected is a question to which but one answer can be given. A competent official should be chosen, to whom the task should be entrusted.

"There is a provision of the laws of New South Wales and of Tasmania which urgently requires attention. The law of New South Wales lays down the conditions under which a manufacturer may guarantee the article he supplies to retailers, and directs every manufacturer who has given a general guarantee to label his packages with an announcement that the contents are guaranteed under the Pure Food Act of the State; and the use of the guarantee given, and of the inscription, is to exonerate the retailer if the contents of such a packet which he has sold, and in respect of which he has been summoned, have been adjudged to be adulterated notwithstanding the guarantee given. Thus the guarantee is, in reality, an agreement between the manufacturer and the retailer which, if given in the prescribed manner, may be recognised by a magistrate, and by him be allowed to take the legal effect of discharging the vendor and of making the supplier the defendant. But the sentence with which such goods are labelled is liable to misinterpretation. It is taken by purchasers to be a guarantee that the contained article is pure and wholesome, and consequently that it is addressed to them. Foods intended for sale which are the subjects of a general guarantee in New South Wales and in Tasmania, must be labelled with the inscription ordered in each of the laws of those States; they must carry on their labels two announcements or else (if to be sold in both the States) they must be sold without guarantee. But two such announcements on one label occupy too much space, so that the legal requirement is troublesome to manufacturers. The question whether the laws should not be at once amended in this respect should be discussed, and answered by central authorities."

Prevention of Consumption.—Recently it was foreshadowed that Newcastle would be one of the first districts to which the anti-tuberculosis dispensary system would be extended. Dr. Doyle asked the Minister (Mr. Flowers) before the close of the session to give the matter consideration, and the request was acceded to. It is understood that definite steps in the matter have now been taken, and that a dispensary will be established in connection with the Newcastle Hospital on the lines of the one about to be established by the Prince Alfred Hospital, Sydney. These anti-tuberculosis dispensaries are specially subsidised by the Government.

Wages Board.—Evidence is still being given before the members of the Chemists' Wages Board. It was stated by Chas. Holstead, an employee of Pattinson and Co., that he worked 111 hours a fortnight, commencing at 8 a.m. and finishing at 9.30 p.m. The proportion of urgent cases was small, and he did not consider that much business would be lost if shops closed at 6 p.m. He was of opinion that the medical man was the proper person to deal with urgent cases, and all emergencies. A weekly wage of £3 10s. would be fair pay for a man who had been in a business for six years. Articles placed on the P.A.T.A. list had increased generally about 12½ per cent.

An apprentice—Roy Robertson Penman—said he was paid 10s. a week, plus board, lodging and

washing, and out of his time was allowed to study and attend University lectures. He was 19 years of age, and was quite satisfied with his position.

William Charles Hume, engaged at the Sydney United Friendly Societies' Dispensary, was recalled, and stated that he did not think a business doing £1000 a year could afford to pay a manager £5 10s. a week.

Robbery at a Chemist's.—At the Newtown Police Court, Reginald James Gifford Keane, 19, was called upon to answer a charge of breaking and entering the residence of Isaac Lee, chemist, of Petersham. When arrested accused, who was employed by Mr. Lee up to December 18th last, said he stole £10 from the cash register. Mr. Lee said that when he left his shop on the night of the 8th inst., the cash register showed £11. The following morning he missed £10 6s. 3d. Accused was committed for trial.

Notes—Personal and Trade.

The Ozonia Proprietary Company Ltd. was registered on December 24th last, with a capital of £1000 in £1 shares, for the purpose of acquiring the business carried on at Sydney by Tom Mason and Arthur Oswald Giles, as proprietors of a medicinal preparation known as Ozonia. The signatures to the registration are those of Tom Mason, A. O. Giles, A. W. H. Padfield, H. H. Gilles, H. W. Gilles, P. M. H. Backhouse, and A. E. Jeanneret; and the first directors are Tom Mason, and Arthur Oswald Giles; while the secretary is Herbert Woodley Gilles.

The Druggists' Sundries Ltd. was registered on January 6th with a capital of £20,000, in £1 shares, to carry on the business of chemists. The signatures to the registration are those of G. C. Sharpe, W. H. Geake, J. M. Hill, E. Jerems, H. R. Richardson, N. H. Allwood, and A. H. Leech. The first directors are Gregory Geake, Geoffrey C. Sharpe, and George T. Harrison. The registered office is Sydney.

Mr. A. A. C. Cocks, M.L.A. for St. Leonards in the State Parliament, managing director of the firm of Arthur Cocks and Co. Ltd., York-street, wholesale opticians, has been elected to the high post of Lord Mayor of Sydney.

Sayers' Allport Proprietary Ltd. are now settled in their new premises, 53-55 Macquarie-street. The premises are commodious and up-to-date, so far as office and other accommodation necessary to carry on the big business of the firm is concerned.

Australian Drug Co. Ltd.—On December 17th last a destructive fire broke out in the basement of the premises occupied by the Australian Drug Co., in O'Connell-street. As soon as the outbreak was discovered, the alarm was raised, and the fire brigade contingents quickly arrived on the spot, with the result that the fire was confined to the portion of the building in which it started, and the loss was alone in stocks of sulphur, oils, and turpentine. No serious damage was done to other portions of the building, except from smoke and water. It was a good save.

It is considered probable that Dr. Paton will succeed Dr. Ashburton Thompson as president of the Board of Health.

Mr. Tilley, the President of the Pharmaceutical Society of West Australia, is visiting Sydney on important business.

Mr. William Griffin Lipscombe, one of the oldest pharmacists in New South Wales, died on January 2nd at West Maitland. Mr. Lipscombe retired from active business some time ago owing to continued ill-health. He was widely and highly respected, and had a charm of manner which endeared him to all with whom he came in contact. He was a very old member of the Pharmaceutical Society of New South Wales, and took a keen interest in every movement, whose object was the advancement of the interests of the profession.

TASMANIA.

Pharmacy Board of Tasmania.

The monthly meeting was held on the 19th December, 1912. Present: Messrs. H. T. Gould (President), J. T. Weaver, Percy Ash, T. James and the Registrar.

Correspondence.—M. Driscoll sent further information as to his indentures, and, after giving his application full consideration, it was resolved that he be required to enter into fresh indentures as from the present time, for twelve months, and that these must be registered on or before the 1st February next. Pharmaceutical Society wrote, drawing attention to the sale of drugs and medicines by local shopkeepers and the sale of poisons by wholesalers without the requirements of the Act having been complied with. Consideration deferred till next month.

Examinations.—Registrar reported that the examinations had been held on the 11th and 12th inst. The report of the Examiners showed that three candidates had presented themselves, viz., two for the Intermediate, and one for the Final, and recommended that one Intermediate and the Final candidate be referred to their studies, and that Miss R. Gladys Philp receive a Pass for the Intermediate. The report was adopted.

Registrar reported that owing to the absence of the Commissioner of Police from town he had been unable to have the matters referred to at last meeting completed, but that they were now receiving attention.

Returning Officer.—The appointment of Mr. Weaver as Returning Officer at the forthcoming elections was confirmed, and the Registrar reported that the election papers had been sent out. The retiring members were Messrs. Drake, Rushton and Ash, the latter of whom did not seek re-election.

Mr. Weaver, on behalf of the members, tendered the President and Mr. Ash cordial season's greetings, and expressed regret that Mr. Ash had decided to retire. The President and Mr. Ash heartily reciprocated the good wishes tendered to them.

The monthly meeting was held 16th January, 1913. Present: Messrs. H. T. Gould (President), M. Rushton, T. James and the Registrar.

The letter from the society re sale of drugs by shopkeepers was held over for the new Board to deal with. Mr. J. Coombe wrote, giving the name of the locum left in charge of his shop as

Norman Roche, and as there is no person of that name on the Register, the Registrar was directed to write most strongly to Mr. Coombe, drawing his attention to the penalties he had incurred under the Act.—The candidate who had failed in the Final examination in December wrote, asking that he be allowed to sit again in March. The Board did not favourably consider the application, but ultimately resolved to refer the matter to the Board of Examiners for their remarks, on receipt of which the matter to be dealt with.

Indentures were registered of Theodore Gilmour Barnett to A. J. Miller, supported by Junior Public Certificate No. 1671.

Season's greetings were tabled from the Pharmaceutical Society of Great Britain, the Irish Society, and most of the Boards and societies of the Commonwealth.

Before the Board rose Mr. J. Ward, the Registrar of the Queensland Board, called and gave an interesting report of the Conference held recently in Melbourne, and discussed various matters of mutual interest to the two Boards.

Pharmaceutical Society of Tasmania.

The meeting of the Council was held on the 6th December, 1912.

Present: Messrs. J. A. Crisp (President), H. T. Gould, T. James and the Secretary (Mr. James Reid).

Minutes of the last meeting were read and confirmed as correct.

Correspondence.—The Secretary of the B.M.A., Tasmanian, Branch, wrote, proposing a conference with the Council on the subject of the chemists prescribing and the notification of infectious diseases. Resolved that the President and Mr. Gould be a committee, to meet the committee from the B.M.A. at a time to be arranged.

Sale of Drugs and Poisons.—Attention was drawn to the sale of drugs by shopkeepers in the city and to the fact that the wholesalers were not complying with the requirements of the Poisons Act. Resolved to refer the matter to the Pharmacy Board, with a recommendation that prompt action should be taken.

Annual Meeting.—It was resolved that the annual meeting of members be held on the 29th January at the Imperial, Collins-street.

Cricket.

Chemists' Cricket Club.

Wholesale v. Retail.—With a view of assisting the selectors in choosing the players for the Interstate game at Sydney in February next, the annual Wholesale v. Retail match took place on January 15th at S.M.C.G. The Wholesale took the batting first. Owing to the fine bowling of Mathias and McNeel, the batsmen showed little resistance, and were disposed of for the small total of 74. A few minutes left before lunch found the Retail with 1 for 10. On resuming the board showed 4 for 36, but when the "bowling" pair became associated a different complexion ensued. McNeel batted splendidly for 70, and quite equalled a similar performance against the Wholesalers some years ago, when he scored 100. The Retail total reached 179. The Wholesale, with an hour to play, again went to the wickets, losing 5 for 60. A notable feature in the scores of the Wholesale was the double performance of G. Hastings, who scored 34 and 40 not out. The game resulted in a win for the Retailers by 105; the result of the match proving quite a change from the succession of wins by the Wholesalers. Scores as follows:—

WHOLESALE FIRST INNINGS

Martin, c De Gruchy, b Mathias	0
Hastings, l.b.w., b Mathias	34
Humphrey, c Mc Neel, b Mathias	6
Bagley, b Mathias	0
Wilde, b Holoway	13
Opray, b Mathias	7
Morgan, b Mathias	3
Bowers, c Mathias, b Mc Neel	6
Fischer, b Mc Neel	0
Williamson, c Mathias, b M'Neel	2
Kenworthy, not out	0
Sundries	3
	74

Mathias, 6 for 35; McNeel, 3 for 25; Chapman, 0 for 11 Holloway, 1 for 0

RETAIL FIRST INNINGS

Staker, c & b Bowers	1
Harvie, c Fischer, b Bowers	2
Berkley, c Opray, b Hastings	9
Chapman, c Fischer, b Bowers	10
McNeel, c & b Humphrey...	70
Mathias, b Kenworthy	19
De Gruchy, c Bowers, b Morgan	19
Gabriel not out	13
Fletcher run out	17
Barnet, b Hastings	5
Holloway, b Hastings	4
Sundries	10
	179

Hastings, 3 for 23, Bower, 3 for 46; Martin, 0 for 17; Kenworthy, 1 for 35; Wilde, 0 for 7; Williamson, 0 for 11; Humphrey, 1 for 29; Morgan, 1 for 1

WHOLESALE SECOND INNINGS

Hastings, not out	40
Bagley, run out	0
Kenworthy, b Mathias	0
Morgan, b Fletcher	0
Bowers, b Chapman	13
Opray run out	2
Martin run out	1
Sundries	4
	5 for 60

Mathias, 1 for 10; Fletcher, 1 for 24; Chapman, 1 for 19.

The annual Interstate match has been arranged for February 11th and 12th at Manly Oval. The Victorian team leaves Melbourne by the "Levuka" on Saturday, February 8th, and anyone desirous of accompanying the team may do so on application to the hon. secretary, C. J. Gabriel. Early application is desired; some members are travelling by train, and in both instances concessions are made.

Bowls.—On Wednesday afternoon, January 15th, a friendly game of bowls was played on the S.M.C.C. Green between those pharmacists who had given up the more strenuous game of cricket. Although the attendance was not up to expectations, still there were sufficient players to form four rinks. Notwithstanding that the wind was rather troublesome and the green keen, the game proved to be a very enjoyable one, and

productive of some very good bowling. Le Couteur was drawn against McKean, and up to the 17th end it was a very even game, when Le Couteur netted a full hand, giving him a lead of eight points, and although McKean won 3 out of the remaining 4 ends he finished seven points down. In the other game Rankin was drawn against Champion. The players in this rink found the wind rather troublesome, and occasionally the play was rather wide. In the first end Champion's rink scored 2 points, then Rankin's men held the mat for the next 6 ends, scoring 7 points. At the 15th end the scores were—Rankin, 13; Champion, 10. From this out Rankin's men played more consistently, and finished 12 points to the good. At the conclusion of the game everyone expressed themselves highly delighted with the friendly contest. The scores were:—Rink 1—Pickford, Garrick, Cossar, Le Couteur, 24; O'Halloran, Wood, Harper, McKean, 17. Rink 2—Cresswell, Whitehouse, Dare, Rankin, 28; Jordan, Baird, Paul, Champion, 16.

PERSONAL.

Mr. F. Cornu, Kerang, has been on a visit to Melbourne for a few days.

Mr. S. H. Knipe is at present relieving at the Hawthorn U.F.S. Dispensary.

Mr. Chas. Richards has returned from Malden Island, and is at present in charge of the Beaufort Pharmacy, lately managed by Mr. J. J. Carroll.

Mr. W. A. London, Bendigo, is spending a holiday at the seaside.

Mr. C. Bellemey, son of Mr. R. T. Bellemey, Sydney, is about to open a business at Mildura.

Mr. A. A. Lord, Swan Hill, spent a few days in Melbourne during the month.

Mr. Dawson, representative of Messrs. F. Stearns and Co., Detroit, is at present in Melbourne on a visit.

Mr. R. G. Grano has accepted a position with Mr. J. B. Tait, Mornington.

Mr. J. W. Carney, late of Aberdeen, has gone to Mr. R. O. Hughes, Rutherglen.

Mr. R. J. Sands is at present relieving at Mr. J. Lacey's during Mr. H. J. Murray's absence.

Mr. R. H. Clyne has gone to Mr. H. J. O'Halloran, North Fitzroy.

Mr. A. Stephenson has completed engagements with Mr. B. P. Dartnell, South Melbourne, and J. Champion, Richmond, and is now relieving Mr. Jas. Boully, Albert Park.

Mr. F. Cathcart is at present acting as locum for Mr. C. Hembrow, Beechworth.

Mr. F. J. Wood, Barham, N.S.W., has been on a visit to Melbourne.

Mr. W. L. Treen has been relieving Mr. T. A. Gawne, Boort.

Mr. R. H. Clyne has been assisting Mr. H. T. Dyte, Thornbury.

Mr. A. W. Madge has been on a visit to Adelaide. He was relieving Mr. J. W. Harris, Beaufort, during the month.

Mr. H. Wilkinson, a well-known Brisbane pharmacist, paid a visit to Melbourne during the month.

Mr. J. Colbourne, Government Agricultural Chemist, Tasmania, was in Melbourne for the Science Congress.

Mr. H. W. Jones has accepted an engagement with Mr. A. Vale, Kensington. Mr. Vale is going to Sydney for the Interstate cricket match.

Mr. A. E. Taylor, late of Pyramid Hill, has been relieving Mr. P. M. Hendry, Brighton. Mr. Hendry has been away on holidays.

At the meeting of the Pharmacy Board held on the 8th January, Mr. C. L. Butchers was appointed Acting Registrar to the Board, and will assume the duties from 1st February. The knowledge which Mr. Butchers has acquired during the past sixteen years as to the working of the Board should eminently fit him for the position.

Pharmacy Board Election.—Messrs. F. Buckhurst, Melbourne; G. E. Gulliver, Melbourne; W. M. Jewkes, Essendon; W. H. Fleay, Ballarat; and Arthur E. Sayer, Bendigo, have decided to nominate for the five vacancies on the Pharmacy Board. Their candidature has been endorsed by the directors of the P.D.L., the chairman of which body has been authorised to call a general meeting of pharmacists in the event of a contest. Mr. Gulliver possesses an English qualification, having passed the British Major Examination. The other four have undergone the Victorian curriculum, and passed the Final Examination. Mr. Jewkes is Electoral Registrar for the district of Essendon.

Mr. J. M. Molloy, Leongatha, suffered severe inconvenience and loss by a fire which destroyed several business premises, including his pharmacy, on December 31. Mr. Molloy was in Melbourne during the month purchasing new stock and fittings.

Mr. R. McMullin, Horsham, is at present enjoying a well-earned holiday at the seaside.

Messrs. W. G. Fegent and W. A. Rodger, of Sydney, two Victorian pharmacists who for some time have been located in New South Wales, were in Melbourne during the Science Congress week.

Mr. H. T. Tompsitt left by the "Mooltan" on January 14 for London. About 30 or 40 of his friends met at Hosie's Cafe on the previous afternoon to bid him good-bye and partake of a parting glass of wine, and a large party attended at the steamer.

Mr. W. A. Gordon, Nagambie, has been on the sick list, and has been ordered three months' complete rest.

Mr. A. J. Botterill, Bunyip, has broken down in health, and has had to take a prolonged holiday. Mr. F. L. Fryer is relieving.

A pleasant reunion took place on the 10th January, when the visiting Registrars to the Pharmaceutical Conference entertained Mr. Shillinglaw at dinner at Cafe Denat. There were present—Messrs. A. Forster (N.S.W.), R. C. Cowley, A. B. Chater (Q'land), A. L. Tilly (W.A.), J. H. Young (South Aus.). In proposing the health of their friend and guest, Mr. Tilly dwelt on the friendly relations which had for so many years existed between them. He could say with all

sincerity that the opinions he had expressed were heartily endorsed by all present. Messrs. Cowley and Forster also spoke of the happy and friendly spirit which prevailed in their relations with their esteemed friend. Mr. Shillinglaw said that he greatly esteemed the kindly opinions expressed by Mr. Tilly and the other speakers. He had always tried to play the game fairly and squarely. It had always been a pleasure to him when visiting other States to find a kindly and cordial reception awaiting him, and although he was shortly retiring from active business life he trusted that this would make no difference in friendly relations.

The Resignation of Mr. H. Shillinglaw, the Registrar to the Pharmacy Board of Victoria, was handed to the President of the Board on December 19, and the President gave instructions that a meeting of the Board be convened for the 23rd. There were present at the meeting Messrs. Lacey (President), Bailey, Ogg, Strutt and Towl when the Board in committee considered Mr. Shillinglaw's resignation. At the termination of the meeting the President made the announcement that Mr. Shillinglaw's resignation had been accepted with deep regret, and that leave of absence on full pay had been granted to him for six months from the 1st February, 1913. Mr. Shillinglaw has held the office of Registrar since the Board was first appointed by the Government on the 6th February, 1877.

NOTES—NEWS, TRADE, ETC.

A Fire Occurred at Messrs. Rocke, Tompsitt and Co.'s Warehouse, Flinders-street, early on the morning of January 18. The fire appeared to have started on the staircase between the third and fourth floors, where a number of cases of methylated spirits were stacked. When the fire brigade arrived dense volumes of smoke were issuing from the building, and it looked as if a serious conflagration would result. However, after three-quarters of an hour's strenuous work the fire was got under control. A large amount of stock was damaged, but the lower floors escaped, and business was carried on as usual after the water was cleared out. The building was insured for £13,700, and the fittings and stock for £43,750.

"Vaporole" Pituitary Extract 0.5 c.c.—From the clinical point of view, one of the most notable results of investigations on the internal secretions of the ductless glands has been the preparation and introduction into therapeutics of an extract of the infundibular portion of the pituitary body. Such an extract, when injected intravenously or intramuscularly, raises the blood pressure and keeps it raised, acts as a stimulant of plain muscle, particularly of the uterus, slows and strengthens the heart-beat and causes profuse diuresis. All these actions have been taken advantage of clinically, and the extract has been successfully used in shock, in post-partum haemorrhage and after labour generally, in cases of intestinal paresis and atony following operations, in typhoid and other fevers, and as a diuretic. In a large number of the successful cases recorded in the literature, the preparation used has been "Vaporole" Pituitary (Infundibular) Extract, a sterilised preparation issued by Messrs. Burroughs, Wellcome and Co. This has hitherto been available only in quantities of 1 c.c., but as a result of its more extended use, and to provide further convenience in dosage, it has now been issued also in containers of 0.5 c.c. "Vaporole" Pituitary (Infundibular) Extract, 0.5 c.c., is packed in boxes of six hermetically sealed containers, and, being sterile, is ready for immediate injection.

PHARMACEUTICAL SOCIETY OF AUSTRALASIA.

THE 56th ANNUAL MEETING of the Members of the Pharmaceutical Society of Australasia will be held at the College of Pharmacy, Swanston-street, Melbourne, on Wednesday, 19th March, 1913, at eleven o'clock a.m.

Business.—The Election of Four Members of the Council and Two Auditors. To receive the Annual Report and Financial Statements. The alteration of the Rules in reference to the admission of Associate Members of the Society, and any other business of which fourteen days' notice has been given.

In the evening a Conversazione will be held at 8 o'clock, and the presentation of the College of Pharmacy Prizes to the successful students during 1912.

HARRY SHILLINGLAW, Secretary.

Election Notices.

PHARMACEUTICAL SOCIETY OF AUSTRALASIA.

ELECTION OF MEMBERS OF COUNCIL AND AUDITORS.

WHEREAS the offices of the persons elected Members of the Council of the Pharmaceutical Society of Australasia and Auditors on 25th March, 1910, have become vacant by effluxion of time; and whereas under the provisions of the said Articles of Association, the Returning Officer shall, in the month of March, in the year 1913, proceed to the ELECTION OF FOUR PERSONS, being MEMBERS of the Pharmaceutical Society of Australasia, to serve as Members of the Council of the said Society and two Auditors.

Notice is hereby given that I will, on the 17th day of March, 1913, proceed to the ELECTION OF FOUR PERSONS, being MEMBERS of the said Society, to serve as Members of Council, and two Auditors; and if the number nominated is greater than the number required to fill the vacancies created as aforesaid, a poll will be taken on the 17th day of March, 1913.

Nomination papers must be lodged or delivered by post at the office of the Pharmaceutical Society of Australasia, College of Pharmacy, Swanston street, Melbourne, before Four o'clock in the afternoon of the 21st day of February, 1913.

SAMUEL BAIRD, Returning Officer.

Dated the 20th day of January, 1913.

COUNTRY BUSINESS — Gippsland, Main Railway line, turnover £1000, showing excellent profits. Stock, fittings, and book debts valued at £700, rent £40 per year. Price, £1000. No. 609, c/o Duerdin and Sainsbury, Melbourne.

COUNTRY BUSINESS—Centre wheat-growing district, doing £600 per year. Stock, fittings, and book debts, £325. Owner desires to sell property also or rent at 22s. 6d. per week. Further particulars on application. No. 636, c/o Duerdin and Sainsbury, Melbourne.

GOOD DISPENSING BUSINESS (City) for Sale, £1700 a year, and capable of large improvement. SAYERS, ALLPORT Prop. Ltd. 55 Macquarie Street, SYDNEY.

PHARMACEUTICAL SOCIETY OF NEW SOUTH WALES.

ALL SYDNEY PHARMACISTS desirous of joining a CLASS on OPTICS are requested to communicate with the Secretary.

A. FORSTER,
Secretary.

Richmond Terrace, Domain, Sydney.

PHARMACY BOARD OF VICTORIA.

MEDICAL ACT 1890, PART III.

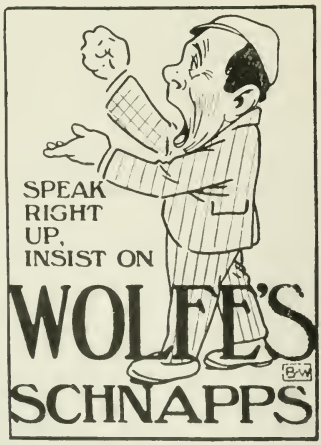
Whereas under the provisions of the Medical Act 1890, Part 3, and of the regulations made thereunder, I, the undersigned, Samuel Baird, was appointed to be the Returning Officer, and to conduct the Elections of Members of the Pharmacy Board of Victoria; and whereas the offices of the persons elected Members of the said Pharmacy Board on the 9th February, 1910, have become vacant by effluxion of time; and whereas under the provisions of the said Medical Act 1890, and of the regulations made thereunder, the Returning Officer shall, in the month of February, in the year 1913, proceed to the ELECTION of THREE PERSONS being registered Pharmaceutical Chemists of Victoria, to serve as members of the Pharmacy Board of Victoria.

Notice is hereby given that I will, on the 11th day of February, 1913, proceed to the Election of Three Persons, being Registered Pharmaceutical Chemists, to serve as members of the Pharmacy Board of Victoria; and also that, if the number of persons nominated is greater than the number of persons required to fill the vacancies created as aforesaid, a POLL will be TAKEN on the 11th day of February, 1913.

Nomination papers must be lodged or delivered by post at the office of the Pharmacy Board of Victoria, College of Pharmacy, Swanston-street, Melbourne, before four o'clock in the afternoon of the 29th day of January, 1913

Dated this 13th day of December, 1912.

SAMUEL BAIRD, Returning Officer.



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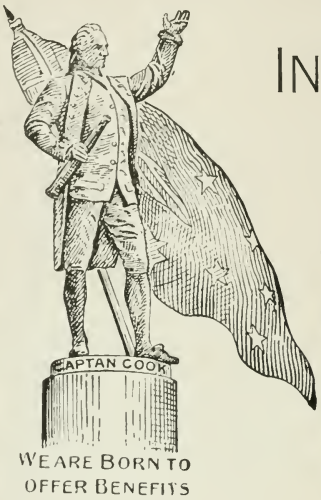

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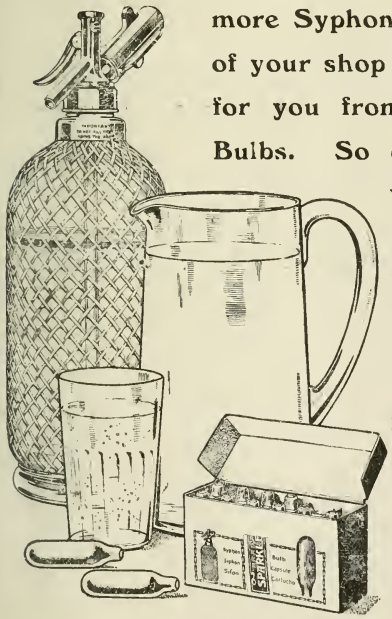

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"Report upon the Carbolic Acid Co-efficient for Bacillus Typhosus of the **KEROL** in the drum marked for identification." The test was performed with a culture of B. Typhosus, which gave well-marked widal reactions with cases of Typhoid Fever.

$$\text{CARBOLIC ACID CO-EFFICIENT} \frac{1400}{100} = 14$$

The co-efficient for Bacillus Typhosus is 14, or, in other words, so far as these tests show, this **KEROL** is 14 time as powerful a germicide for Bacillus Typhosus as Carbolic Acid is.

(Signed) T. P. ANDERSON STUART, M.D., LL.D.
(Signed) HENRY G. CHAPMAN, M.D.

University of Sydney, December 14th, 1908.

A 1/3 Bottle makes 20 Gallons of efficient Disinfectant.

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TRIAL CASES, spherical, 50/-, with instructions.

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Jobbing and Prescription Work Promptly Attended To.

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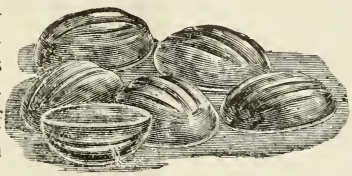
HOWEY PLACE, **Prop. Ltd.,**
LITTLE COLLINS STREET,
MELBOURNE.

The 'Allenburys' Throat Pastilles

SOFT, DEMULCENT, PALATABLE.

In the medical treatment of most Throat Affections a simple & effective method of local application is a necessity.



The exigencies of modern practice demand the employment of a large variety of drugs in a soothing and demulcent form.

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The following Pastilles are largely used, and have been found from long practical experience to be very efficacious:

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Menthol, gr. 1/20th. Cocaine, gr. 1/20th. Red Gum, 2 grs.

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Eucalyptus, ½ minim of the Oil. Red Gum, gr. 1.

No. 28. COMPOUND GUAIACUM.
Guaiacum, gr. 1. Chlorate of Potash, grs. 2. Red Gum, gr. ½.

No. 29. COMPOUND RHATANY.
Extract of Rhatany, grs. 2. Cocaine Hydrochlor., gr. 1/20th.

No. 38. CHLORATE OF POTASH, BORAX AND COCAINE.
Chlorate of Potash, grs. 2. Borax, gr. 1. Cocaine, gr. 1/20th.

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Menthol, gr. 1/20th. Eucalyptus Oil, min. 1.

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Menthol, gr. 1/20th. Eucalyptus Oil, min. 1. Cocaine, gr. 1/20th.

1/- Box of any variety, with detailed list, free to Medical Men in Australasia.

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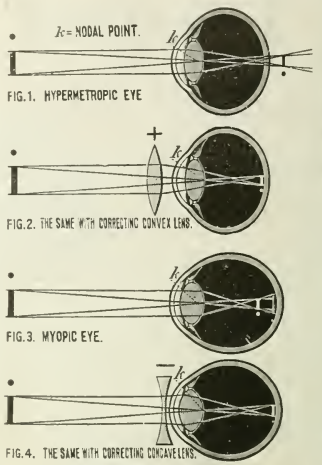
k= NODAL POINT.
FIG.1. HYPERMETROPIC EYE
FIG.2. THE SAME WITH CORRECTING CONVEX LENS.
FIG.3. MYOPIC EYE.
FIG.4. THE SAME WITH CORRECTING CONCAVE LENS.
EFFECT OF LENSES.

Van HOUTEN'S Cocoa

BEST AND GOES FARTHEST.

Neave's MILK Food

Recommended BEST Food for Infants

Largely used by ALL CHILDREN HOSPITALS and FOUNDLING HOMES.

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GREAT PEPPERMINT CURE

FOR COUGHS AND COLDS.

REMARKABLE FOR ITS POPULARITY.
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POSSESSING THREE VIRTUES.

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Rubber Adhesive Plaster

On Strong Cotton Cloth. Will stick *at once* and *perfectly* in any temperature, without warming. In tins of 1 yard, 7½-in. wide, 14/- per doz. tins.

On Spools containing 10 yards:— ½-in. ¾-in. 1-in. 1½-in. 2-in. 3-in. 5/- 10/- 12/6 15/- 19/- 23/- 30/. } Spools per

On scarlet felt. Perfectly reliable.

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Your Belladonna Plaster *is the best* I have ever used."—D. G——, M.D., The Hoe, Plymouth.

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FOR ALL

Bilious and Nervous Disorders,

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Impaired Digestion,
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RECOMMENDS ITSELF.

Is Efficacious, Economical, Cleanses the Teeth, Perfumes the Breath, and is a Reliable and Pleasant Dentifrice.

In Collapsible Tubes, ONE SHILLING each.

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THOMAS BEECHAM, St. Helens, England.

Sold by all Druggists and Patent Medicine Dealers everywhere.

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"BLUE FINCH" BRAND OF TASMANIAN
— EUCALYPTUS GLOBULUS —
GUARANTEED B.P. STANDARD:
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Special Quotations will be given for same on submitting Formulæ to us.

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FOR THE SUMMER TRADE IS

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MALTED MILK
Barley, Wheat, and Milk in Powder Form
IN WASTING DISEASES.
Hundreds of physicians appreciate its high quality. It is distinctive and inimitable. It means stringent milk regulations, malt in which the enzymes have been properly developed, a clean, sun-flooded plant with sanitary surroundings, and many years of experience. A food that may be of vital importance to some infant under your care that is not gaining in weight. Supplies the essential nutriment for stimulating life forces in the treatment of Febrile Diseases, Malarial Cachexia, Incipient Tuberculosis, and all cases of Systemic Weakness.
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"THE REPELLO."

REQUIRES NO SHAKING DOWN.

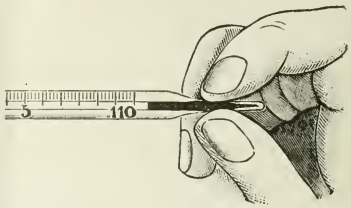
A 30 SEC. CLINICAL THERMOMETER RESET IN AN INSTANT!

The Greatest Time-Saving and Tube-Saving Invention in Clinical Thermometers is

"The REPELLO"

Literally—"I PUSH BACK."

Patented in the United Kingdom, America, and on the Continent.



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All our Thermometers are made from "Normal Glass" which prevents the bulb contracting, making them perfectly accurate for all time.

Glass Throughout. Hermetically Sealed Nothing to go wrong. Will Not Roll. Made in All Kinds. Tested and Passed at Kew.

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Milne's Antiseptic Ligatures.

In Straight Lengths.

Surgeons should see John Milne's Name on every package of these most reliable and convenient patented Ligatures, so as to avoid purchasing cheap and inferior imitations.

Each flask can be supplied in a wooden case at a small additional cost.

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We have just introduced a specially woven Gauze which is used as a basis for the above. It is uniformly absorbent, very soft, closely and evenly woven, and most economical in use, and goes twice or thrice as far as the gauze usually supplied. We medicate it with any antiseptic, and pack in one, three and six yard air-tight boxes and jars, if desired "Moist" it can be so supplied.

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Professor CHITTENDEN (Yale University), reports:—

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No. 37.

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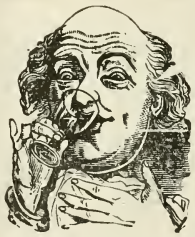
THE NEXT PRELIMINARY EXAMINATION (Old Standard) will be held in June, 1913. Particulars may be obtained from A. FORSTER,
Registrar Pharmacy Board of New South Wales,
7 Richmond Terrace, Sydney, May, 1912.

The next Preliminary Examination (New Standard), will be held in June, 1913. Particulars may be obtained from A. FORSTER,
Registrar Pharmacy Board of New South Wales,
7 Richmond Terrace, Domain, May, 1912.



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Agents:—
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PIRATED.

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IMPORTANT TO CHEMISTS AND OTHERS.

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DECOCTIONS—Dec. Sarsæ Jam. Co. Conc.

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Ext. Valerianæ Liq. (from English Valerian Root).

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Tinct. Benzoin Comp., P.B.
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CONCENTRATED TINCTURES—These are prepared of uniform and standard strength. One fluid part equals four fluid parts of tincture.

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"THREE SPIRES BRAND" Preparations.

Wyleys Ltd. specially devote themselves to the manufacture of Chemists Own Name Preparations, and will be glad to receive inquiries respecting this branch of their business.

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Pharmacy Board Notices.

MEDICAL ACT 1890, PART III.

THE PRELIMINARY EXAMINATION

AS required by Section 88, Sub-section 4 of the "Medical Act 1890," Part III., is held at the COLLEGE OF PHARMACY, Swanston Street, Melbourne, in MARCH, JUNE, SEPTEMBER, DECEMBER.

Next Examination: MONDAY and TUESDAY, 3rd and 4th MARCH, 1913.

The following are the compulsory subjects:—

Latin.—Grammar; translation of simple sentences from English into Latin, translation into English of two paragraphs from Cæsar—De Bello Gallico, Book I., or two from Virgil—Æneid, Book I. *In each examination paper two passages from both of the authors will be given, but a candidate will be required to translate only two passages from Cæsar or two from Virgil.*

English.—Grammar and composition. The University Text Book in English.

The Text Book for September and December, 1912, and March and June, 1913, will be:—"*A Victorian Anthology for Schools,*" *by M. P. Hansen, 1st Section.*

The poems to be memorised are—*Tennyson*: Three Songs (Break, Break, Break, The Splendour Fades (Bugle song), The Bells), and Crossing the Bar. *Browning*: Prospice. *Kipling*: Flag of England. *Henley*: England. *Newbolt*: Clifton Chapel. *Cuthbertson*: Sunrise.

Arithmetic.—First four rules simple and compound vulgar and decimal fractions and simple and compound proportion. Thorough knowledge of the British and metrical system of weights and measures.

Geometry.—The first book of Euclid.

Algebra.—So far as simple equations.

(Quality of handwriting will be taken into account in awarding marks.)

The following text-books are recommended by the Examiner:—

Latin.—For Grammar and Composition:—
All-n's Elementary Latin Grammar.
Allen's First Latin Exercise Book.
These two books contain everything necessary for a sound and satisfactory preparation.

Arithmetic.—Any good school treatise.

English.—Accidence and Analysis—Nesfield's Outline of English Grammar, omitting Part V.

Algebra.—Any good school treatise. C. Smith's Elementary Algebra may be mentioned as a work covering all requirements.

Euclid.—Any good school treatise on Euclid, Book 1. The works by Hall and Steven, Smith and Bryant, Layng, or R. Deakin (Tutorial Series), may be mentioned as thoroughly satisfactory manuals.

The questions given at the examinations are published in the "Australasian Journal of Pharmacy" for March, June, September and December in each year. 1/- a copy.

Candidates must give written notice of their intention to present themselves, together with the Fee of One Guinea, TEN DAYS prior to the date fixed for the examination.

REGULATIONS *RE* EXAMINATIONS.

1. The marks for a pass in any of the compulsory subjects of the Preliminary, Intermediate, or Final Examinations shall be not less than 50 per cent. of the maximum marks of 100.

2. Any person who fails to obtain a pass in not more than two subjects at the Preliminary, Intermediate, or Final Examinations shall be entitled after a period of three months to present himself in either or both of the subjects in which he failed at any subsequent examinations on payment of the prescribed fees.

3. No certificate shall be issued to any person who has not passed in all the compulsory subjects of the examinations prescribed by Section 88 of the Medical Act, 1890, Part 3. But in the Preliminary Examination, if a candidate produces and lodges with the Registrar a certificate that he has, at the Junior Public or Senior Public Examination of the Melbourne University, or of some other University recognised by the Board, passed in any or all of the above subjects, he shall not be required to pass the Preliminary Examination in the subject or subjects included in the Junior or Senior Public Examination certificate.

4. Any candidate who desires a re-examination of any of the written papers sent in by him shall within seven days of the publication of the results of such examination lodge with the Registrar his application for a re-examination of such papers, and shall also pay a fee of 10s. 6d. for each and every paper examined.

5. Fees—The Preliminary Examination or any subject, £1 1s.; the Intermediate Examination, Chemistry, Practical Chemistry, Materia Medica, Botany, £2 2s., for any single subject, £1 1s.; Final Examination, all subjects, £3 3s., for any subsequent examination, £1 11s. 6d.

INTERMEDIATE EXAMINATION.

In Materia Medica and Botany and Chemistry and Practical Chemistry for the Certificate of the College of Pharmacy, Melbourne.

THE EXAMINATION of Students who have attended the Lectures in the above subjects is held half-yearly in June and December. The next examination will be held at the COLLEGE OF PHARMACY on 4th, 5th, 6th and 7th JUNE, 1913. The Examination Fee of Two Guineas must be paid ten days before that date.

THE FINAL EXAMINATION.

IN accordance with the Provisions of Clause 40 of the Regulations of "The Medical Act 1900," Part III., an EXAMINATION IN PRACTICAL PHARMACY before the Board will be held at the College of Pharmacy on the 5th, 6th, 7th and 8th MARCH, 1913, at 10 o'clock a.m.

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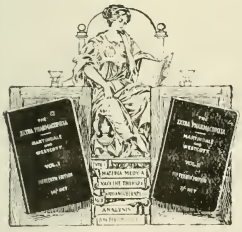

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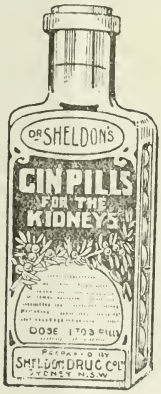

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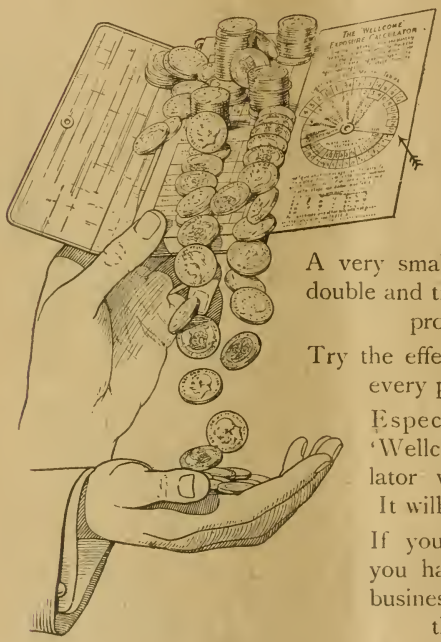

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